STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 139074

TO: Ralph J Gitomer **Location: 3d65 / 3e71** **Art Unit: 1651** **Tuesday, December 07, 2004** **Case Serial Number: 10/693214**	**From: Noble Jarrell** **Location: Biotech-Chem Library** **Rem 1B71** **Phone: 272-2556** **Noble.jarrell@uspto.gov**

Search Notes

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=> d his

     (FILE 'HOME' ENTERED AT 10:42:25 ON 07 DEC 2004)

     FILE 'HCAPLUS' ENTERED AT 10:42:29 ON 07 DEC 2004
L1             1 US20040086954/PN
L2             1 (US6720162 OR US20020028477)/PN
                 E US2000-208405/APPS
L3             1 US2000-208405P/AP,PRN
L4             1 L1-3

     FILE 'REGISTRY' ENTERED AT 10:44:15 ON 07 DEC 2004

     FILE 'HCAPLUS' ENTERED AT 10:44:18 ON 07 DEC 2004
L5               TRA L4 1- RN :       18 TERMS

     FILE 'REGISTRY' ENTERED AT 10:44:18 ON 07 DEC 2004
L6            18 SEA L5

     FILE 'WPIX' ENTERED AT 10:44:21 ON 07 DEC 2004
L7             1 (US6720162 OR US20020028477 OR US20040086954)/PN
                 E US2000-208405/AP,PRN
L8             1 US2000-208405P/AP,PRN
L9             1 L7-8

=> b hcap
FILE 'HCAPLUS' ENTERED AT 10:45:43 ON 07 DEC 2004
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FILE COVERS 1907 - 7 Dec 2004  VOL 141 ISS 24
FILE LAST UPDATED: 6 Dec 2004  (20041206/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


=> d all l4

L4   ANSWER 1 OF 1  HCAPLUS  COPYRIGHT 2004 ACS on STN
AN   2001:886545  HCAPLUS
DN   136:17258
ED   Entered STN:  07 Dec 2001
TI   Assay for kinases and phosphatases using a product immobilization
IN   Goueli, Said; Vidugiriene, Jolanta; Karassina, Natasha
PA   Promega Corporation, USA
SO   PCT Int. Appl., 53 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
IC   ICM  C12Q001-00
CC   7-1 (Enzymes)
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   --------
PI   WO 2001092560        A2    20011206    WO 2001-US17554        20010531 <--
     WO 2001092560        A3    20020801
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
             HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
             LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
             RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN,
             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
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DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

	CA 2410823	AA	20011206	CA 2001-2410823	20010531	<--
	US 2002028477	A1	20020307	US 2001-871424	20010531	<--
	US 6720162	B2	20040413			
	EP 1290213	A2	20030312	EP 2001-939747	20010531	<--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
	JP 2004500859	T2	20040115	JP 2002-500751	20010531	<--
	US 2004086954	A1	20040506	US 2003-693214	20031024	<--
PRAI	US 2000-208405P	P	20000531	<--		
	US 2001-871424	A3	20010531			
	WO 2001-US17554	W	20010531			

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
WO 2001092560	ICM	C12Q001-00	
US 2002028477	ECLA	C12Q001/42; C12Q001/48B	<--
JP 2004500859	FTERM	4B063/QA01; 4B063/QQ27; 4B063/QQ33; 4B063/QQ73; 4B063/QR42; 4B063/QR47; 4B063/QR57; 4B063/QS36; 4B063/QS39; 4B063/QX07; 4B063/QX10	<--
US 2004086954	ECLA	C12Q001/42; C12Q001/48B	<--

OS MARPAT 136:17258

AB Disclosed is a method and corresponding kit for assaying the presence, activity, or both, of an enzyme classified within an enzyme classification selected from the group consisting of EC 2.7.1, EC 3.1.3, and EC 3.1.4. The method generally includes the steps of reacting an enzyme with a substrate for a time sufficient to yield phosphorylated or dephosphorylated product; contacting the product with a binding matrix, whereby product is adhered to the matrix; and then analyzing the matrix for presence of, amount of, or both the presence and the amount of the product fixed to the matrix, whereby the presence, the activity, or both the presence and activity of the enzyme can be determined

ST kinase phosphatase detn product immobilization

IT Aldehydes, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(aldehyde-activated support; assay for kinases and phosphatases using product immobilization)

IT Immobilization, molecular or cellular
Scintillation detectors
Test kits
(assay for kinases and phosphatases using product immobilization)

IT Phosphatidylinositols
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(assay for kinases and phosphatases using product immobilization)

IT Antigens
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(assay for kinases and phosphatases using product immobilization)

IT Antibodies and Immunoglobulins
Avidins
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(immobilized; assay for kinases and phosphatases using product immobilization)

IT Phosphate group
(labeled; assay for kinases and phosphatases using product immobilization)

IT Optical imaging devices
(phosphoimager; assay for kinases and phosphatases using product immobilization)

IT Immobilization, molecular or cellular
(protein; assay for kinases and phosphatases using product immobilization)

IT 9013-05-2, Phosphatase 9031-44-1, Kinase (phosphorylating) 9033-46-9 9036-01-5 37205-54-2 37288-19-0 63551-76-8 72060-45-8, Lipid kinase 104645-76-3, Phosphatidylinositol-4-phosphate 5-kinase 104645-76-3 115926-52-8, Phosphatidylinositol 3-kinase 124248-47-1 210488-47-4, Phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase
RL: ANT (Analyte); ANST (Analytical study)
(assay for kinases and phosphatases using product immobilization)

IT 2964-07-0 377739-39-4D, derivs.
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(assay for kinases and phosphatases using product immobilization)

IT 58-85-5, Biotin
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(assay for kinases and phosphatases using product immobilization)

IT 9013-20-1, Streptavidin

RL: ARU (Analytical role, unclassified); ANST (Analytical study) (immobilized; assay for kinases and phosphatases using product immobilization)
IT 14596-37-3, Phosphorus-32, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (phosphate group labeled by; assay for kinases and phosphatases using product immobilization)
IT 9004-34-6, Cellulose, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study) (support; assay for kinases and phosphatases using product immobilization)

=> b reg
FILE 'REGISTRY' ENTERED AT 10:45:48 ON 07 DEC 2004
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 5 DEC 2004 HIGHEST RN 792236-36-3
DICTIONARY FILE UPDATES: 5 DEC 2004 HIGHEST RN 792236-36-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

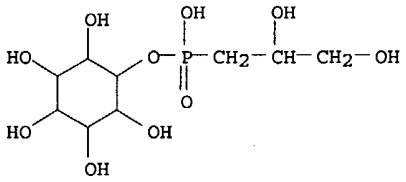
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Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

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L6 ANSWER 1 OF 18 REGISTRY COPYRIGHT 2004 ACS on STN
RN **377739-39-4** REGISTRY
CN Inositol, mono[hydrogen (2,3-dihydroxypropyl)phosphonate] (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C9 H19 O10 P
SR CA
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL
DT.CA CAplus document type: Patent
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); USES (Uses)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 2 OF 18 REGISTRY COPYRIGHT 2004 ACS on STN
RN **210488-47-4** REGISTRY
CN Phosphatase, phosphoinositide 3,4,5-trisphosphate 3- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase
MF Unspecified

CI MAN
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL
DT.CA CAplus document type: Journal; Patent
RL.P Roles from patents: ANST (Analytical study)
RL.NP Roles from non-patents: BIOL (Biological study); OCCU (Occurrence); PROC (Process); PRP (Properties)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
51 REFERENCES IN FILE CA (1907 TO DATE)
51 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 3 OF 18 REGISTRY COPYRIGHT 2004 ACS on STN
RN **124248-47-1** REGISTRY
CN Phosphatase, phosphatidylinositol 3- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN E.C. 3.1.3.64
CN Phosphatidylinositol 3-phosphatase
CN Phosphatidylinositol 3-phosphate 3-phosphatase
CN Phosphoinositide 3-phosphatase
MF Unspecified
CI MAN
SR CA
LC STN Files: BIOSIS, CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL
DT.CA CAplus document type: Journal; Patent
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
27 REFERENCES IN FILE CA (1907 TO DATE)
27 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 4 OF 18 REGISTRY COPYRIGHT 2004 ACS on STN
RN **115926-52-8** REGISTRY
CN Kinase (phosphorylating), phosphatidylinositol 3- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 229: PN: US20040180038 PAGE: 35 claimed sequence
CN E.C. 2.7.1.137
CN Phosphatidylinositol 3'-kinase
CN Phosphatidylinositol 3-hydroxyl kinase
CN Phosphatidylinositol 3-kinase
CN Phosphoinositide 3'-hydroxykinase
CN Phosphoinositide 3'-kinase
CN Phosphoinositide 3-kinase
CN PI3 kinase
MF Unspecified
CI MAN
SR CA
LC STN Files: ADISNEWS, AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CEN, CIN, EMBASE, PROMT, TOXCENTER, USPAT2, USPATFULL
DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
9965 REFERENCES IN FILE CA (1907 TO DATE)
73 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
10028 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 5 OF 18 REGISTRY COPYRIGHT 2004 ACS on STN

RN **104645-76-3** REGISTRY
CN Kinase (phosphorylating), phosphatidylinositol 4-phosphate 5- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Diphosphodiglyceride inositol kinase
CN Diphosphoinositide kinase
CN E.C. 2.7.1.68
CN Gene MSS4 kinases
CN Kinase, gene MSS4
CN MSS4
CN Phosphatidylinositol 4-monophosphate 5-kinase
CN Phosphatidylinositol 4-monophosphate kinase
CN Phosphatidylinositol 4-phosphate 5-kinase
CN Phosphatidylinositol 4-phosphate 5-kinase C
CN Phosphatidylinositol 4-phosphate kinase
DR 9032-61-5
MF Unspecified
CI MAN
SR CA
LC STN Files: AGRICOLA, BIOSIS, BIOTECHNO, CA, CAPLUS, EMBASE, TOXCENTER, USPAT2, USPATFULL
DT.CA CAplus document type: Conference; Dissertation; Journal; Patent
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); NORL (No role in record)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
358 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
359 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 6 OF 18 REGISTRY COPYRIGHT 2004 ACS on STN
RN **72060-45-8** REGISTRY
CN Kinase (phosphorylating), phospholipid (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Lipid kinase
CN Phospholipid kinase
MF Unspecified
CI MAN
LC STN Files: AGRICOLA, BIOSIS, CA, CAPLUS, CEN, CIN, PROMT, TOXCENTER, USPAT2, USPATFULL
DT.CA CAplus document type: Conference; Journal; Patent
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); PREP (Preparation); PRP (Properties); USES (Uses)
RL.NP Roles from non-patents: BIOL (Biological study); OCCU (Occurrence); PROC (Process); PRP (Properties)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
59 REFERENCES IN FILE CA (1907 TO DATE)
59 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 7 OF 18 REGISTRY COPYRIGHT 2004 ACS on STN
RN **63551-76-8** REGISTRY
CN Phospholipase C, phosphatidylinositol (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 1-Phosphatidylinositol-4,5-bisphosphate phosphodiesterase
CN E.C. 3.1.4.11
CN Glycoprotein VSG lipase
CN Inositol phospholipid-specific phospholipase C
CN Inositol-specific phospholipase C
CN Phosphatidyl inositol-4,5-bisphosphate phospholipase C
CN Phosphatidylinositide-phospholipase C
CN Phosphatidylinositide-specific phospholipase C
CN Phosphatidylinositol 4-monophosphate-phospholipase C
CN Phosphatidylinositol bisphosphate phospholipase C
CN Phosphatidylinositol phospholipase C
CN Phosphatidylinositol-4,5-bisphosphate-specific phospholipase C
CN Phosphatidylinositol-dependent phospholipase C
CN Phosphatidylinositol-sensitive phospholipase C

CN Phosphatidylinositol-specific phospholipase C
CN Phosphoinositidase
CN Phosphoinositidase C
CN Phosphoinositide phospholipase C
CN Phosphoinositide-dependent phospholipase C
CN Phosphoinositide-specific phospholipase C
CN Phosphoinositide-specific phospholipase C .delta.1
CN Phosphoinositol-specific phospholipase C
CN Phosphoinositol-specific phospholipase C.alpha.
CN Phosphoinositol-specific phospholipase C.beta.
CN Phosphoinositol-specific phospholipase C.delta.
CN Phosphoinositol-specific phospholipase C.epsilon.
CN Phosphoinositol-specific phospholipase C.gamma.
CN Phospholipase C
CN Phospholipase C .beta.1
CN Phospholipase C .delta.1
CN Phospholipase C, glycoprotein VSG
CN Phospholipase C-.beta.4c
CN Phospholipase C-.gamma.1
CN Phospholipase C-.gamma.2
CN Phospholipase C.alpha.
CN Phospholipase C.beta.
CN Phospholipase C.beta.2
CN Phospholipase C.beta.3
CN Phospholipase C.beta.4
CN Phospholipase C.delta.
CN Phospholipase C.delta.2
CN Phospholipase C.epsilon.
CN Phospholipase C.gamma.
CN Phospholipase C.gamma.-1
CN Phospholipase C.zeta.
CN Polyphosphoinositide-phospholipase C
CN Polyphosphoinositide-specific phospholipase C
CN Polyphosphoinositol-specific phospholipase C
CN Triphosphoinositide phosphodiesterase
DR 105503-68-2, 37213-51-7
MF Unspecified
CI MAN
LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CHEMCATS, CIN, EMBASE, PROMT, TOXCENTER, USPAT2, USPATFULL
DT.CA CAplus document type: Conference; Dissertation; Journal; Patent; Preprint
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PROC (Process); PRP (Properties)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
4364 REFERENCES IN FILE CA (1907 TO DATE)
16 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
4382 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 8 OF 18 REGISTRY COPYRIGHT 2004 ACS on STN
RN **37288-19-0** REGISTRY
CN Phosphodiesterase, monophosphatidylinositol (9CI) (CA INDEX NAME)
OTHER NAMES:
CN E.C. 3.1.4.10
CN Monophosphatidylinositol phosphodiesterase
CN Phosphatidylinositol phosphodiesterase
MF Unspecified
CI MAN
LC STN Files: AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CAPLUS, EMBASE, TOXCENTER, USPAT2, USPATFULL
DT.CA CAplus document type: Conference; Journal; Patent
RL.P Roles from patents: ANST (Analytical study)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP

(Properties); RACT (Reactant or reagent)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
54 REFERENCES IN FILE CA (1907 TO DATE)
54 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 9 OF 18 REGISTRY COPYRIGHT 2004 ACS on STN
RN **37205-54-2** REGISTRY
CN Kinase (phosphorylating), phosphatidylinositol 4- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 1-Phosphatidylinositol 4-kinase
CN E.C. 2.7.1.67
CN Phosphatidylinositol 4-kinase
CN Polyphosphoinositide 4-kinase
DR 115603-35-5
MF Unspecified
CI MAN
LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CIN, EMBASE, TOXCENTER, USPAT2, USPATFULL
DT.CA CAplus document type: Conference; Dissertation; Journal; Patent
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); PRP (Properties)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
642 REFERENCES IN FILE CA (1907 TO DATE)
5 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
642 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 10 OF 18 REGISTRY COPYRIGHT 2004 ACS on STN
RN **14596-37-3** REGISTRY
CN Phosphorus, isotope of mass 32 (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN 32P
CN P 32
CN Phosphorus-32
DR 24267-55-8
MF P
CI COM
LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMLIST, CIN, CSNB, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, NIOSHTIC, PROMT, TOXCENTER, USPAT2, USPATFULL
DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

32p

5226 REFERENCES IN FILE CA (1907 TO DATE)
115 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
5227 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 11 OF 18 REGISTRY COPYRIGHT 2004 ACS on STN

RN **9036-01-5** REGISTRY
CN Phosphatase, triphosphoinositide (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Diphosphoinositide phosphatase
CN E.C. 3.1.3.36
CN Phosphatidylinositol 4,5-bisphosphate 5-phosphatase
CN Phosphatidylinositol bisphosphatase
CN Triphosphoinositide phosphatase
CN Triphosphoinositide phosphomonoesterase
DR 54596-22-4
MF Unspecified
CI MAN
LC STN Files: BIOSIS, CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL
DT.CA CAplus document type: Conference; Dissertation; Journal; Patent
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)
RL.NP Roles from non-patents: BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); NORL (No role in record)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
79 REFERENCES IN FILE CA (1907 TO DATE)
79 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 12 OF 18 REGISTRY COPYRIGHT 2004 ACS on STN
RN **9033-46-9** REGISTRY
CN Phosphatase, phosphatidylglycerol (9CI) (CA INDEX NAME)
OTHER NAMES:
CN E.C. 3.1.3.27
CN PGP phosphatase
CN Phosphatidylglycerol phosphatase
CN Phosphatidylglycerol phosphate phosphatase
CN Phosphatidylglycerophosphatase
MF Unspecified
CI MAN
LC STN Files: AGRICOLA, BIOSIS, BIOTECHNO, CA, CAPLUS, EMBASE, TOXCENTER, USPAT2, USPATFULL
DT.CA CAplus document type: Journal; Patent
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); NORL (No role in record)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
29 REFERENCES IN FILE CA (1907 TO DATE)
29 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 13 OF 18 REGISTRY COPYRIGHT 2004 ACS on STN
RN **9031-44-1** REGISTRY
CN Kinase (phosphorylating) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Kinase
CN Phosphoferase
CN Phosphokinase
CN Phosphopherase
DR 9038-17-9
MF Unspecified
CI MAN
LC STN Files: ADISNEWS, AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CEN, CIN, EMBASE, PROMT, TOXCENTER, USPAT2, USPATFULL
DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: BIOL (Biological study); PROC (Process)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
995 REFERENCES IN FILE CA (1907 TO DATE)
16 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
997 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 14 OF 18 REGISTRY COPYRIGHT 2004 ACS on STN
RN **9013-20-1** REGISTRY
CN Streptavidin (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN 42: PN: WO2004026900 SEQID: 42 claimed sequence
MF Unspecified
CI PMS, MAN
PCT Manual registration
LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CIN, CSCHEM, EMBASE, IPA, MEDLINE, MSDS-OHS, PIRA, PROMT, TOXCENTER, USPAT2, USPATFULL
DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
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RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

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4282 REFERENCES IN FILE CA (1907 TO DATE)
1222 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
4298 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 15 OF 18 REGISTRY COPYRIGHT 2004 ACS on STN
RN **9013-05-2** REGISTRY
CN Phosphatase (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 4-Methylumbelliferyl phosphatase
CN Alkyl phosphomonoesterase
CN Naphthol-AS-B1-phosphohydrolase
CN Naphthol-AS-Bi-phosphohydrolase
CN Phosphoesterase
CN Phosphohydrolase
CN Phosphomonoesterase
CN Phosphoric acid esterase
DR 9013-13-2
MF Unspecified
CI MAN
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CBNB, CEN, CHEMLIST, CIN, CSCHEM, CSNB, EMBASE, IFICDB, IFIPAT, IFIUDB, MEDLINE, NAPRALERT, NIOSHTIC, PIRA, PROMT, TOXCENTER, USPAT2, USPATFULL
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)
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RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PRP (Properties); USES (Uses)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
14153 REFERENCES IN FILE CA (1907 TO DATE)
64 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
14160 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 16 OF 18 REGISTRY COPYRIGHT 2004 ACS on STN
RN **9004-34-6** REGISTRY
CN Cellulose (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN .alpha.-Cellulose
CN .beta.-Amylose
CN 3mAQUACEL
CN 402-2B
CN Alicell LV
CN Alpha Cel PB 25
CN Alphafloc
CN Arbocel
CN Arbocel B 00
CN Arbocel B 600
CN Arbocel B 600/30
CN Arbocel B 800
CN Arbocel B 820C
CN Arbocel BC 1000
CN Arbocel BC 200
CN Arbocel BE 600
CN Arbocel BE 600/10
CN Arbocel BE 600/20
CN Arbocel BE 600/30
CN Arbocel BEM
CN Arbocel BFC 200
CN Arbocel BWW 40
CN Arbocel DC 1000
CN Arbocel FD 00
CN Arbocel FD 600/30
CN Arbocel FIC 200
CN Arbocel FT 40
CN Arbocel FT 600/30H
CN Arbocel G 350
CN Arbocel LZ 51
CN Arbocel M 80P
CN Arbocel TF 30HG
CN Arbocel TP 40
CN Arbocell TF 0406
CN Avicel
CN Avicel 101
CN Avicel 102
CN Avicel 2330
CN Avicel 2331
CN Avicel 955
CN Avicel CL 611
CN Avicel E 200
CN Avicel F 20
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CN Avicel FD 101
CN Avicel FD-F 20
CN Avicel M 06
CN Avicel M 15
CN Avicel M 25
CN Avicel NT 020
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
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MF Unspecified
CI PMS, COM, MAN
PCT Manual registration, Polyother, Polyother only
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DIOGENES, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC,

PIRA, PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
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RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

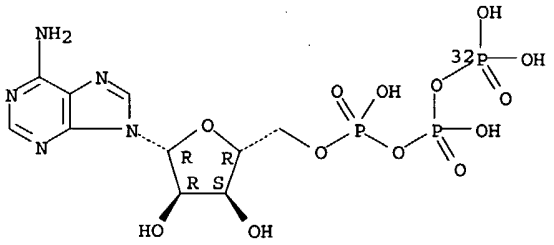
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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

84252 REFERENCES IN FILE CA (1907 TO DATE)
9149 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
84336 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 17 OF 18 REGISTRY COPYRIGHT 2004 ACS on STN
RN **2964-07-0** REGISTRY
CN Adenosine 5'-(tetrahydrogen triphosphate-P''-32P) (8CI, 9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Adenosine 5'-triphosphate-.gamma.-32P (7CI)
CN Adenosine triphosphate-.gamma.-32P (6CI)
OTHER NAMES:
CN ATP-.gamma.-32P
FS STEREOSEARCH
MF C10 H16 N5 O13 P3
CI COM
LC STN Files: AGRICOLA, BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
DT.CA CAplus document type: Conference; Journal; Patent; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: PREP (Preparation); RACT (Reactant or reagent)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent); USES (Uses)
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Absolute stereochemistry.

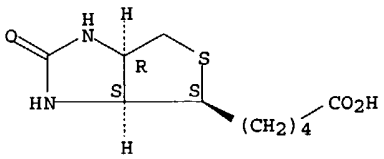


151 REFERENCES IN FILE CA (1907 TO DATE)
5 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
151 REFERENCES IN FILE CAPLUS (1907 TO DATE)
8 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 18 OF 18 REGISTRY COPYRIGHT 2004 ACS on STN
RN **58-85-5** REGISTRY
CN 1H-Thieno[3,4-d]imidazole-4-pentanoic acid, hexahydro-2-oxo-, (3aS,4S,6aR)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1H-Thieno[3,4-d]imidazole-4-pentanoic acid, hexahydro-2-oxo-, [3aS-(3a.alpha.,4.beta.,6a.alpha.)]-
CN Biotin (8CI)
OTHER NAMES:
CN (+)-Biotin
CN (+)-cis-Hexahydro-2-oxo-1H-thieno[3,4]imidazole-4-valeric acid
CN Biodermatin
CN Bioepiderm
CN Bios II
CN cis-(+)-Tetrahydro-2-oxothieno[3,4]imidazoline-4-valeric acid
CN Coenzyme R
CN D(+)-Biotin
CN d-Biotin
CN D-Biotin
CN Factor S
CN Factor S (vitamin)
CN Lutavit H2
CN Meribin
CN NSC 63865
CN Rovimix H 2
CN Vitamin B7
CN Vitamin H
FS STEREOSEARCH
DR 58073-87-3, 15720-24-8, 22879-79-4, 3672-05-7
MF C10 H16 N2 O3 S
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DIOGENES, DRUGU, EMBASE, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PHAR, PIRA, PROMT, PS, RTECS*, SPECINFO, TOXCENTER, USAN, USPAT2, USPATFULL, VETU
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); MSC (Miscellaneous); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM

(Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

Absolute stereochemistry. Rotation (+).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

12900 REFERENCES IN FILE CA (1907 TO DATE)
2643 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
12933 REFERENCES IN FILE CAPLUS (1907 TO DATE)
8 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

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FILE 'WPIX' ENTERED AT 10:46:05 ON 07 DEC 2004
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FILE LAST UPDATED: 6 DEC 2004 <20041206/UP>
MOST RECENT DERWENT UPDATE: 200478 <200478/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE, PLEASE VISIT:
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>>> NEW DISPLAY FORMAT HITSTR ADDED ALLOWING DISPLAY OF HIT STRUCTURES WITHIN THE BIBLIOGRAPHIC DOCUMENT <<<

>>> SMILES and ISOSMILES strings are no longer available as Derwent Chemistry Resource display fields <<<

=> d all l9

L9 ANSWER 1 OF 1 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 2002-471141 [50] WPIX
DNC C2002-133876
TI Assay for lipid kinase or phospholipid phosphatase enzymes comprises determining the presence and/or amount of phosphorylated or dephosphorylated substrate on binding matrix.
DC B04 B05 D16
IN GOUELI, S; KARASSINA, N; VIDUGIRIENE, J
PA (PROM-N) PROMEGA CORP; (GOUE-I) GOUELI S; (KARA-I) KARASSINA N; (VIDU-I) VIDUGIRIENE J
CYC 96
PI WO 2001092560 A2 20011206 (200250)* EN 53 C12Q001-00
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
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           RO SE SI TR
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     US 6720162      B2 20040413 (200425)             C12Q001-42     <--
     US 2004086954   A1 20040506 (200430)             G01N033-53     <--
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     2003-693214 20031024
FDT  AU 2001065231 A Based on WO 2001092560; EP 1290213 A2 Based on WO
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     20010531; US 2003-693214       20031024
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     ICS  C12Q001-34; C12Q001-44; G01N033-537; G01N033-543; G01N033-573
AB   WO 200192560 A UPAB: 20020807
     NOVELTY - Assay for lipid kinase (EC 2.7.1) or phospholipid phosphatase
     (EC 3.1.3 or EC 3.1.4) enzymes comprises: either (A) contacting the enzyme
     with a substrate to form a phosphorylated or dephosphorylated product,
     immobilizing the product on a binding matrix and determining the presence
     and/or amount of bound product; or (B) immobilizing the substrate on a
     binding matrix, contacting the substrate with the enzyme and determining
     the presence and/or amount of bound product.
          DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a
     kit for performing such an assay, comprising a container of reaction
     buffer, a container of enzyme substrate, a binding matrix and instructions
     for use of the kit.
          USE - The assay is especially useful analyzing cell lysates or
     organic solutions for the presence of 1-phosphatidylinositol 4-kinase (EC
     2.7.1.67), 1-phosphatidylinositol-4-phosphate 5-kinase (EC 2.7.1.68),
     1-phosphatidylinositol 3-kinase (EC 2.7.1.137),
     phosphatidylglycerophosphatase (EC 3.1.3.27), phosphatidylinositol
     bisphosphatase (EC3.1.3.36), phosphatidylinositol 3-phosphatase (EC
     3.1.3.64), (EC 3.1.3.67), 1-phosphatidylinositol phosphodiesterase (EC
     3.1.4.10) or 1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase (EC
     3.1.4.11).
          ADVANTAGE - The assay can be performed quickly and conveniently,
     directly on tissue or cell extracts, without the need for lipid
     extraction, and is suitable for use in automated high-throughput assay
     systems.
     Dwg.0/11
FS   CPI
FA   AB; GI; DCN
MC   CPI: B04-C02A; B04-L04; B04-L05A; B05-B01P; B11-C07A6; B12-K04; D05-H09;
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STRUCTURE FILE UPDATES:    5 DEC 2004  HIGHEST RN 792236-36-3
DICTIONARY FILE UPDATES:   5 DEC 2004  HIGHEST RN 792236-36-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

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Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> d ide l13

L13  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2004 ACS on STN
RN   63551-76-8  REGISTRY
CN   Phospholipase C, phosphatidylinositol (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   1-Phosphatidylinositol-4,5-bisphosphate phosphodiesterase
CN   E.C. 3.1.4.11
CN   Glycoprotein VSG lipase
CN   Inositol phospholipid-specific phospholipase C
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CN   Phosphatidyl inositol-4,5-bisphosphate phospholipase C
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CN   Phosphatidylinositide-specific phospholipase C
CN   Phosphatidylinositol 4-monophosphate-phospholipase C
CN   Phosphatidylinositol bisphosphate phospholipase C
CN   Phosphatidylinositol phospholipase C
CN   Phosphatidylinositol-4,5-bisphosphate-specific phospholipase C
CN   Phosphatidylinositol-dependent phospholipase C
CN   Phosphatidylinositol-sensitive phospholipase C
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CN   Phosphoinositidase
CN   Phosphoinositidase C
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CN   Phosphoinositol-specific phospholipase C.gamma.
CN   Phospholipase C
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CN   Phospholipase C .delta.1
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CN   Phospholipase C.beta.
CN   Phospholipase C.beta.2
CN   Phospholipase C.beta.3
CN   Phospholipase C.beta.4
CN   Phospholipase C.delta.
CN   Phospholipase C.delta.2
CN   Phospholipase C.epsilon.
CN   Phospholipase C.gamma.
CN   Phospholipase C.gamma.-1
CN   Phospholipase C.zeta.
CN   Polyphosphoinositide-phospholipase C
```

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CN   Polyphosphoinositide-specific phospholipase C
CN   Polyphosphoinositol-specific phospholipase C
CN   Triphosphoinositide phosphodiesterase
DR   105503-68-2, 37213-51-7
MF   Unspecified
CI   MAN
LC   STN Files:   AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS,
       CASREACT, CHEMCATS, CIN, EMBASE, PROMT, TOXCENTER, USPAT2, USPATFULL
DT.CA CAplus document type:  Conference; Dissertation; Journal; Patent;
       Preprint
RL.P   Roles from patents:  ANST (Analytical study); BIOL (Biological study);
       OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties);
       USES (Uses)
RLD.P  Roles for non-specific derivatives from patents:  ANST (Analytical
       study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP
       (Properties); USES (Uses)
RL.NP  Roles from non-patents:  ANST (Analytical study); BIOL (Biological
       study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU
       (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT
       (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents:  BIOL (Biological
       study); FORM (Formation, nonpreparative); OCCU (Occurrence); PROC
       (Process); PRP (Properties)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
            4364 REFERENCES IN FILE CA (1907 TO DATE)
              16 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
            4382 REFERENCES IN FILE CAPLUS (1907 TO DATE)


=> => d his

     (FILE 'HOME' ENTERED AT 10:42:25 ON 07 DEC 2004)

     FILE 'HCAPLUS' ENTERED AT 10:42:29 ON 07 DEC 2004
L1             1 US20040086954/PN
L2             1 (US6720162 OR US20020028477)/PN
                 E US2000-208405/APPS
L3             1 US2000-208405P/AP,PRN
L4             1 L1-3

     FILE 'REGISTRY' ENTERED AT 10:44:15 ON 07 DEC 2004

     FILE 'HCAPLUS' ENTERED AT 10:44:18 ON 07 DEC 2004
L5               TRA L4 1- RN :       18 TERMS

     FILE 'REGISTRY' ENTERED AT 10:44:18 ON 07 DEC 2004
L6            18 SEA L5

     FILE 'WPIX' ENTERED AT 10:44:21 ON 07 DEC 2004
L7             1 (US6720162 OR US20020028477 OR US20040086954)/PN
                 E US2000-208405/AP,PRN
L8             1 US2000-208405P/AP,PRN
L9             1 L7-8

     FILE 'REGISTRY' ENTERED AT 11:03:08 ON 07 DEC 2004
L10          416 ("E.C." OR EC OR "E C") (1A) ("2.7.1"? OR "3.1.3"? OR "3.1.4"?)
L11            8 L10 AND L6
L12            7 124248-47-1 OR 115926-52-8 OR 104645-76-3 OR 37288-19-0 OR 3720
                 E "E.C. 3.1.4.11"/CN
L13            1 "E.C. 3.1.4.11"/CN

     FILE 'HCAPLUS' ENTERED AT 11:35:02 ON 07 DEC 2004
L14       201698 (L10 OR L12 OR L13)
L15          392 PHOSPHATASE (3A) (PHOPSHOINOSITIDE OR PHOSPHATIDYLINOSITOL) OR
L16        14510 KINASE (3A)(PHOSPHATIDYLINOSITOL OR PHOSPHOINOSITIDE OR PI3 OR
L17           52 KINASE? (1A) (DIPHOSPHOGLYCERIDE OR DIPHOSPHOINOSITIDE OR GENE
L18          256 PHOSOPHOLIPASE (4A) (PHOSPATIDYLINOSIT? OR INOSITOL OR POLYPHOS
L19          108 PHOSPHODIESTERASE (1A) ?PHOSPHATIDYLINOSITOL/BI OR "E.C. 3.1.4.
L20        10156 KINASE (1A)PHOSPHATIDYLINOSITOL OR "E.C. 2.7.1.67" OR "EC2.7.1.
L21          656 ?PHOSPHATASE/BI (4A) (?PHOSPHOINOSITIDE/BI OR PHOSPHATIDYLINOSI
L22           23 PHOSPHATASE (1A) PHOSPHATIDYLGLYCEROL OR PHOSPHATIDYLGLYCEROPHO
L23         3422 "E.C. 3.1.4.11" OR "EC3.1.4.11" OR ("E.C." OR EC) (1A) "3.1.4.1
L24        18515 PHOSPHOLIPASE (1A) C OR (PHOSPHOLIPASE (1A) C) (3A) (INOSITOL O
L25                QUE (DRUG SCREENING +OLD OR HIGH THROUGHPUT SCREENING OR IMMUNO
L26         2229 LABORATORY WARE+NT/CT (L) (MICROTIT? OR MICROPLAT?)
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L27        57193 ANALYS!S/CW (L) (MICRO? OR APP?)
L28         9777 (FLUOROMETRY+NT OR X-RAY SPECTROSCOPY+OLD,NT OR ANALYTICAL APPA
                 E GOUELL S/AU
                 E GOUELI S/AU
L29           66 E4-5
                 E VIDUGRIENE J/AU
                 E VIDUGIRIENE J/AU
L30           16 E3-4
                 E KARASSINA N/AU
L31            2 E5-6
L32          250 PROMEGA/CS,PA
L33         5613 L14-24 AND L25-28
L34           12 L33 AND L29-32
L35              QUE PY<=2000 OR PRY<=2000 OR AY<=2000 OR PD<20000531 OR AD<2000
                 SEL AN 1-30
L36        11402 (L10 OR L12 OR L13) (L) ANST+NT/RL
L37          393 L16-24 (L) ANST+NT/RL
L38        11481 L36-37
L39         2565 L38 AND L25-28
L40            9 L39 AND L29-32
L41           12 L34 OR L40
L42         2556 L39 NOT L40
L43         1779 L42 AND L35
L44         1217 L43 AND P/DT
L45          238 L44 AND US/PC.B
                 SEL AN 1-30
L46           30 E57-116 AND L45
                 SEL AN 6 15 24 20 12 8 17 9 22 14 23
L47           11 E117-138 AND L46
                 SEL AN L45 31-60
L48           30 E139-200 AND L45
L49         4947 (L10 OR L12 OR L13 OR L16 OR L17 OR L18 OR L19 OR L20 OR L21 OR
L50          997 L49 AND L24-28
L51            5 L50 AND L29-32
L52          992 L50 NOT L51
L53           12 L51 OR L41
L54          667 L35 AND L52
L55          335 L54 AND P/DT
L56           76 L55 AND US/PC.B
L57           65 L56 NOT L46
                 SEL AN 1-30
L58           30 E201-262 AND L57
                 DEL SEL
                 SEL AN 2-30
L59           29 E1-60 AND L58
L60           40 L59 OR L47

=> b hcap
FILE 'HCAPLUS' ENTERED AT 12:49:08 ON 07 DEC 2004
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FILE COVERS 1907 - 7 Dec 2004  VOL 141 ISS 24
FILE LAST UPDATED: 6 Dec 2004  (20041206/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


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L53  ANSWER 1 OF 12  HCAPLUS  COPYRIGHT 2004 ACS on STN
AN   2004:546582  HCAPLUS
DN   141:101088
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ED Entered STN: 08 Jul 2004
TI Methods of capturing, detecting and quantifying RNA:DNA hybrids and a modified RNase H useful therein
IN Carter, Richard; Rosenburg, Martin; Gentry, Daniel R.; Grinter, Nigel
PA **Promega** Corporation, USA
SO PCT Int. Appl., 85 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C12Q
CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 7, 9
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004057016	A2	20040708	WO 2003-US41097	20031219
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2004229242	A1	20041118	US 2003-742355	20031218
PRAI	US 2002-435136P	P	20021219		
	US 2003-742355	A	20031218		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004057016	ICM	C12Q

AB Methods for specific RNA capture, detection and quantification are presented utilizing a protein that selectively binds RNA:DNA hybrids, preferably an RNase H that is modified to reduce degradation of the nucleic acid mols. and enhance specific detection of mixed RNA:DNA nucleic acid hybrids. Labeling of the RNA and/or amplification is not required to perform these methods. Modified RNase H enzymes useful in such methods are disclosed. An optimal RNase H variant comprises the substitutions D94G, D134A, and at least two of sixteen other sequence substitutions, and fused to a peptide motif for modification by biotin ligase and phosphorylation by cAMP-dependent protein kinase.

ST RNA capture detection quantification DNA hybrid; mRNA capture detection quantification DNA hybrid; RNase H mutagenesis RNA capture detection
IT Proteins
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(RNA:DNA hybrid-binding; methods of capturing, detecting and quantifying RNA:DNA hybrids and a modified RNase H useful therein)
IT Escherichia coli
(RNase H from; methods of capturing, detecting and quantifying RNA:DNA hybrids and a modified RNase H useful therein)
IT DNA sequences
(for RNase H muteins from Escherichia coli; methods of capturing, detecting and quantifying RNA:DNA hybrids and a modified RNase H useful therein)
IT Fluorescent indicators
(hybrid-binding protein label; methods of capturing, detecting and quantifying RNA:DNA hybrids and a modified RNase H useful therein)
IT Fluorescence quenching
Nucleic acid hybridization
Surface plasmon resonance
(methods of capturing, detecting and quantifying RNA:DNA hybrids and a modified RNase H useful therein)
IT RNA
mRNA
RL: ANT (Analyte); PUR (Purification or recovery); ANST (Analytical study); PREP (Preparation)
(methods of capturing, detecting and quantifying RNA:DNA hybrids and a modified RNase H useful therein)
IT Probes (nucleic acid)
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(methods of capturing, detecting and quantifying RNA:DNA hybrids and a modified RNase H useful therein)
IT Mutagenesis

Protein engineering
(of RNase H from Escherichia coli; methods of capturing, detecting and quantifying RNA:DNA hybrids and a modified RNase H useful therein)
IT Protein sequences
(of RNase H muteins from Escherichia coli; methods of capturing, detecting and quantifying RNA:DNA hybrids and a modified RNase H useful therein)
IT **Immunoassay**
(of bound protein; methods of capturing, detecting and quantifying RNA:DNA hybrids and a modified RNase H useful therein)
IT **DNA microarray technology**
(solid support; methods of capturing, detecting and quantifying RNA:DNA hybrids and a modified RNase H useful therein)
IT Imaging
(surface plasmon resonance; methods of capturing, detecting and quantifying RNA:DNA hybrids and a modified RNase H useful therein)
IT 9026-81-7, Nuclease 9068-38-6, Reverse transcriptase 433935-36-5, Polymerase
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(RNA:DNA hybrid-binding; methods of capturing, detecting and quantifying RNA:DNA hybrids and a modified RNase H useful therein)
IT **9050-76-4P**, RNase H
RL: **ARG (Analytical reagent use)**; BPN (Biosynthetic preparation); PRP (Properties); **ANST (Analytical study)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(RNA:DNA hybrid-binding; methods of capturing, detecting and quantifying RNA:DNA hybrids and a modified RNase H useful therein)
IT 717607-05-1DP, variants 717607-06-2P 717607-07-3P 717607-08-4P 717607-09-5P
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino acid sequence; methods of capturing, detecting and quantifying RNA:DNA hybrids and a modified RNase H useful therein)
IT **9001-78-9**, Alkaline phosphatase 9014-00-0, Luciferase
RL: **ARG (Analytical reagent use)**; **ANST (Analytical study)**; USES (Uses)
(hybrid-binding protein label; methods of capturing, detecting and quantifying RNA:DNA hybrids and a modified RNase H useful therein)
IT 717607-10-8 717607-11-9
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(nucleotide sequence; methods of capturing, detecting and quantifying RNA:DNA hybrids and a modified RNase H useful therein)
IT 717129-21-0 717607-16-4 717607-17-5 717607-18-6 717607-19-7 717607-20-0 717607-21-1 717607-22-2
RL: PRP (Properties)
(unclaimed sequence; methods of capturing, detecting and quantifying RNA,DNA hybrids and a modified RNase H useful therein)
IT 50864-51-2, Single-strand-specific exonuclease
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(unhybridized nucleic acid digestion by; methods of capturing, detecting and quantifying RNA:DNA hybrids and a modified RNase H useful therein)

L53 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:397756 HCAPLUS
DN 141:360156
ED Entered STN: 17 May 2004
TI A homogeneous, nonradioactive high-throughput fluorogenic protein phosphatase assay
AU Kupcho, Kevin; Hsiao, Kevin; Bulleit, Bob; **Goueli, Said A.**
CS Cellular Analysis Group, Research and Development, **Promega** Corp., Madison, WI, USA
SO Journal of Biomolecular Screening (2004), 9(3), 223-231
CODEN: JBISF3; ISSN: 1087-0571
PB Sage Publications
DT Journal
LA English
CC 1-1 (Pharmacology)
Section cross-reference(s): 7
AB Protein phosphatases are critical components in cellular regulation; they do not only act as antioncogenes by antagonizing protein kinases, but they also play a pos. regulatory role in a variety of cellular processes that require dephosphorylation. Thus, assessing the function of these enzymes necessitates the need for a robust, sensitive assay that accurately

measures their activities. The authors present a novel, homogeneous, and nonradioactive assay to measure the enzyme activity of low concns. of several protein phosphatases (phosphoserine/phosphothreonine phosphatases and phosphotyrosine phosphatases). The assay is based on the use of fluorogenic peptide substrates (rhodamine 110, bis-phosphopeptide amide) that do not fluoresce in their conjugated form, which is resistant to cleavage by aminopeptidases. However, upon dephosphorylation by the phosphatase of interest, the peptides become cleavable by the protease and release the highly fluorescent-free rhodamine 110. The assay is rapid, can be completed in less than 2 h, and can be carried out in multiwell plate formats such as 96-, 384-, and 1536-well plates. The assay has an excellent dynamic range, high signal-to-noise ratio, and a Z' of more than 0.8, and it is easily adapted to a robotic system for drug discovery programs targeting protein phosphatases.

ST high throughput screening protein serine threonine tyrosine phosphatase assay; okadaic acid high throughput screening sodium vanadate drug discovery

IT Phosphorylation, biological
(-dephosphorylation; low concns. of protein serine threonine phosphatases measured by homogeneous high-throughput assay based on use of 2 bisamide R110 linked peptides and direct correlation between dephosphorylated peptide and fluorescence output)

IT Dephosphorylation, biological
(-phosphorylation; low concns. of protein serine threonine phosphatases measured by homogeneous high-throughput assay based on use of 2 bisamide R110 linked peptides and direct correlation between dephosphorylated peptide and fluorescence output)

IT Enzymes, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(anal.; homogeneous nonradioactive high-throughput fluorogenic assay based on use of fluorogenic peptide substrate rhodamine 110- to measure low concns. of several protein phosphatases phospho-serine, -threonine and -tyrosine)

IT **High throughput screening**
(drug; homogeneous nonradioactive high-throughput fluorogenic assay to measure low concns. of several protein phosphatases is rapid, completed in less than 2 h and carried out in multiwell plate formats and has high signal-to-noise ratio)

IT **Drug screening**
(high throughput; homogeneous nonradioactive high-throughput fluorogenic assay to measure low concns. of several protein phosphatases is rapid, completed in less than 2 h and carried out in multiwell plate formats and has high signal-to-noise ratio)

IT Drug discovery
(homogeneous high-throughput fluorogenic assay has an excellent dynamic range, high signal-to-noise ratio and Z of more than 0.8 and it is easily adapted to robotic system for drug discovery programs targeting protein phosphatases)

IT Drug targets
(protein phosphatase inhibitor okadaic acid inhibited PP1 and PP2A activity whereas protein tyrosine phosphatase inhibitor sodium vanadate inhibited PTP1B activity in homogeneous nonradioactive high-throughput fluorogenic assay)

IT 362479-32-1, Protein phosphatase 1
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(low concns. of protein phosphatase 1 measured by homogeneous high-throughput assay based on use of 2 bisphosphothreonine R110 linked peptides and direct correlation between dephosphorylated peptide and fluorescence output)

IT 362674-81-5, Protein phosphatase 2A
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(low concns. of protein phosphatase 2A measured by homogeneous high-throughput assay based on use of 2 bisphosphothreonine R110 linked peptides and direct correlation between dephosphorylated peptide and fluorescence output)

IT 361540-77-4, Protein phosphatase 2B
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(low concns. of protein phosphatase 2B measured by homogeneous high-throughput assay based on use of 2 bisphosphothreonine R110 linked peptides and direct correlation between dephosphorylated peptide and fluorescence output)

IT 362690-38-8, Protein phosphatase 2C
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(low concns. of protein phosphatase 2C measured by homogeneous high-throughput assay based on use of 2 bisphosphothreonine R110 linked peptides and direct correlation between dephosphorylated peptide and

fluorescence output)
IT 375798-61-1, Protein phosphatase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(low concns. of protein phosphatases measured by homogeneous high-throughput assay based on use of fluorogenic 2 bisamide R110 linked peptides and direct correlation between dephosphorylated peptide and fluorescence output)
IT **9025-75-6**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(low concns. of protein serine threonine phosphatases measured by homogeneous high-throughput assay based on use of 2 bisamide R110 linked peptides and direct correlation between dephosphorylated peptide and fluorescence output)
IT 300865-11-6, Protein tyrosine phosphatase 1B
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(low concns. of protein tyrosine phosphatase 1B measured by homogeneous high-throughput assay based on use of 2 bisphosphotyrosine R110 linked peptides and direct correlation between dephosphorylated peptide and fluorescence output)
IT 300859-91-0, Protein tyrosine phosphatase CD45
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(low concns. of protein tyrosine phosphatase CD45 measured by homogeneous high-throughput assay based on use of 2 bisphosphotyrosine R110 linked peptides and direct correlation between dephosphorylated peptide and fluorescence output)
IT **79747-53-8**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(low concns. of protein tyrosine phosphatase measured by homogeneous high-throughput assay based on use of 2 bisphosphotyrosine R110 linked peptides and direct correlation between dephosphorylated peptide and fluorescence output)
IT 78111-17-8, Okadaic acid
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(protein phosphatase inhibitor okadaic acid inhibited protein phosphatase 2A activity and PP2A in homogeneous nonradioactive high-throughput fluorogenic assay)
IT 11105-06-9, Sodium vanadate
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(protein tyrosine phosphatase inhibitor sodium vanadate inhibited protein tyrosine phosphatase 1B activity in homogeneous nonradioactive high-throughput fluorogenic assay)
RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Boge, A; Paper presented at the 9th Annual Meeting of Society of Biomolecular Screening 2003
(2) Cohen, P; Eur J Biochem 2001, V268, P5001 HCAPLUS
(3) Cohen, P; Nature Rev Drug Disc 2002, V1, P309 HCAPLUS
(4) Dass, C; Life Sci 1996, V58, P1039 HCAPLUS
(5) Geladopoulos, T; Anal Biochem 1991, V192, P112 HCAPLUS
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(7) Huang, Z; J Biomol Screen 1999, V4, P327 HCAPLUS
(8) Kupcho, K; Anal Biochem 2003, V317, P210 HCAPLUS
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(13) Murray, P; Int J Biochem Cell Biol 1996, V28, P451 HCAPLUS
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(15) Rodems, S; Assay Drug Dev Tech 2002, V1, P9 HCAPLUS
(16) Rudolph, J; Anal Biochem 2001, V289, P43 HCAPLUS
(17) Zhang, J; J Biomol Screen 1999, V4, P67
(18) Zhang, Z; Anal Biochem 1993, V211, P7 HCAPLUS

L53 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:355196 HCAPLUS
DN 140:353189
ED Entered STN: 30 Apr 2004
TI Methods, kits and devices using metal-modified solid supports for separating molecules
IN Simpson, Daniel J.; Johnson, Tonny; Shultz, John; Flemming, Roderick G.; Godat, Rebecca; Kar, Sanchayita; Hurst, Robin
PA **Promega** Corporation, USA
SO PCT Int. Appl., 106 pp.
CODEN: PIXXD2
DT Patent
LA English

IC ICM G01N
CC 9-1 (Biochemical Methods)
Section cross-reference(s): 3, 4, 29, 79
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004036189	A2	20040429	WO 2003-US33374	20031020
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2004127357	A1	20040701	US 2003-689176	20031020
	US 2004185545	A1	20040923	US 2003-689368	20031020
PRAI	US 2002-419614P	P	20021018		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004036189	ICM	G01N

OS MARPAT 140:353189
AB The present invention provides compns. and methods for the separation of metals or mols. such as polypeptides, nucleic acids, or endotoxins using a metal-modified solid support. The metals or mols. are isolated from a starting material using the modified solid supports of the invention. Also provided by the invention are kits and devices that can be used in connection with the inventive methods. Rabbit reticulocyte lysate aliquots were diluted and mixed with 3-[[[bis(carboxymethyl)amino]acetyl]amino]propyl magnetic silica particles (preparation given) or with nickel, cobalt, copper, zinc, iron, or gallium 3-[[[bis(carboxymethyl)amino]acetyl]amino]propyl magnetic silica particles (preparation given) in Eppendorf tubes. The tubes were then place onto a magnet, the supernatant was removed, and the particles were washed three times. Bound proteins were eluted from the particles with 0.5 M imidazole and were analyzed by SDS-PAGE.
ST metal modified support mol sepn; protein sepn metal modified magnetic silica particle
IT Animal cell line
(CHO, proteins fractionation from lysate of; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Reticulocyte
(aminopropyl-modified magnetic silica particles for removal of Hb and fractionation of target proteins from lysate of; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Enzymes, analysis
RL: ANT (Analyte); BSU (Biological study, unclassified); CAT (Catalyst use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(assaying activity of; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Escherichia coli
(capture of; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Translation, genetic
(capturing membrane vesicles used in; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Translation, genetic
(cell-free, capturing membrane vesicles used in; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Enzymes, analysis
RL: ANT (Analyte); BSU (Biological study, unclassified); CAT (Catalyst use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(conjugates, with polyhistidine tag, assaying activity of; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Salts, uses
RL: NUU (Other use, unclassified); USES (Uses)
(elution buffer altering concentration of, for sequential polypeptide elution; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Hydrophobicity
Ionic strength
pH
(elution buffer altering, for sequential polypeptide elution; methods, kits and devices using metal-modified solid supports for separating mols.)

IT Toxins
RL: BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(endotoxins; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Apparatus
(for protein purification; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Triticum aestivum
(germ, proteins fractionation from lysate of; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Proteins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(green fluorescent, his-tagged; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Chelating agents
(immobilized, in detecting proteins; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Buffers
(in kit; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Proteins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(labeled, with affinity tag or detectable label; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Microsome
(membrane vesicles, membrane-associated proteins isolation from; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Proteins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(membrane; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Magnetic separation
Separation
Test kits
(methods, kits and devices using metal-modified solid supports for separating mols.)
IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); PUR (Purification or recovery); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)
(methods, kits and devices using metal-modified solid supports for separating mols.)
IT Nucleic acids
Ovalbumin
Peptides, biological studies
Phosphoproteins
Polynucleotides
tRNA
RL: BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(methods, kits and devices using metal-modified solid supports for separating mols.)
IT Silica gel, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(methods, kits and devices using metal-modified solid supports for separating mols.)
IT Membrane, biological
(microsomal vesicles, membrane-associated proteins isolation from; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Fluids
(modified support for reducing metal ions in; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Ions
(modified support for reducing metal; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Detergents
(nonionic, in isolating membrane-associated proteins; methods, kits and devices using metal-modified solid supports for separating mols.)

IT Reduction
(of metal ions in fluids, modified support for; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Solvents
(organic, for sequential polypeptide elution; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Dyes
Fluorescent dyes
Fluorescent substances
(polypeptide labeled with; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Eubacteria
(removal of cells of; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Cell
(removal of; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Proteins
RL: BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(separation; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Albumins, analysis
RL: ANT (Analyte); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(serum, fluorescent labeling and detection of; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Magnetic particles
(silica, as solid support; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Metals, preparation
RL: DEV (Device component use); NUU (Other use, unclassified); PUR (Purification or recovery); PREP (Preparation); USES (Uses)
(solid supports modified with; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Hemoglobins
RL: BSU (Biological study, unclassified); MSC (Miscellaneous); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(target material separation from; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Hemoproteins
Myoglobins
RL: MSC (Miscellaneous)
(target material separation from; methods, kits and devices using metal-modified solid supports for separating mols.)
IT Pipets
(tips, for protein purification device; methods, kits and devices using metal-modified solid supports for separating mols.)
IT **9001-78-9P** 9031-11-2P, .beta.-Galactosidase
RL: PUR (Purification or recovery); PREP (Preparation)
(Hb removal from and fractionation of; methods, kits and devices using metal-modified solid supports for separating mols.)
IT 631-61-8, Ammonium acetate
RL: NUU (Other use, unclassified); USES (Uses)
(in elution of tRNA; methods, kits and devices using metal-modified solid supports for separating mols.)
IT 13822-56-5, 3-Aminopropyltrimethoxysilane
RL: RCT (Reactant); RACT (Reactant or reagent)
(in preparation of modified magnetic silica particles; methods, kits and devices using metal-modified solid supports for separating mols.)
IT 64-17-5, Ethanol, uses 67-56-1, Methanol, uses 67-63-0, Isopropanol, uses
RL: NUU (Other use, unclassified); USES (Uses)
(in removal of cells; methods, kits and devices using metal-modified solid supports for separating mols.)
IT 7631-86-9, Silica, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(magnetic particles, MP-50; methods, kits and devices using metal-modified solid supports for separating mols.)
IT 7631-86-9DP, Silica, alkyl derivs.
RL: NUU (Other use, unclassified); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(magnetic particles; methods, kits and devices using metal-modified solid supports for separating mols.)
IT 9033-22-1DP, Methionyl tRNA synthetase, histidine-tagged derivs.
9050-76-4DP, RNase HI, histidine-tagged derivs. 61869-41-8DP,

Renilla luciferase, histidine-tagged derivs. 61970-00-1DP, Firefly luciferase, histidine-tagged derivs. 120178-77-0DP, RNasin, histidine-tagged derivs.
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(methods, kits and devices using metal-modified solid supports for separating mols.)

IT 14701-22-5D, Nickel(II), ions, compds., immobilized, uses 20074-52-6D, ions, compds., immobilized, uses 22537-33-3D, Gallium(III), ions, compds., immobilized, uses
RL: DEV (Device component use); NUU (Other use, unclassified); USES (Uses)
(methods, kits and devices using metal-modified solid supports for separating mols.)

IT 288-32-4, Imidazole, uses
RL: NUU (Other use, unclassified); USES (Uses)
(methods, kits and devices using metal-modified solid supports for separating mols.)

IT 682350-91-0P
RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(methods, kits and devices using metal-modified solid supports for separating mols.)

IT 127-19-5, N,N-Dimethylacetamide 1760-24-3, N-[3-(Trimethoxysilyl)propyl]ethylenediamine 7447-39-4, Copper chloride (CuCl2), reactions 7646-79-9, Cobalt(II) chloride, reactions 7646-85-7, Zinc chloride (ZnCl2), reactions 7718-54-9, Nickel(II) chloride, reactions 10028-22-5, Iron(III) sulfate 13494-90-1, Gallium trinitrate 33658-49-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(methods, kits and devices using metal-modified solid supports for separating mols.)

IT 682350-91-0DP, reaction products with silica and metals
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(methods, kits and devices using metal-modified solid supports for separating mols.)

IT 13531-52-7DP, reaction products with silica
RL: SPN (Synthetic preparation); PREP (Preparation)
(methods, kits and devices using metal-modified solid supports for separating mols.)

IT 26062-48-6P, Polyhistidine 26854-81-9P, Polyhistidine
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(polypeptide labeled with; methods, kits and devices using metal-modified solid supports for separating mols.)

IT 50-01-1, Guanidine hydrochloride 57-13-6, Urea, uses
RL: NUU (Other use, unclassified); USES (Uses)
(protein purification in presence of; methods, kits and devices using metal-modified solid supports for separating mols.)

IT 2321-07-5, Fluorescein 138026-71-8, Bodipy
RL: RCT (Reactant); RACT (Reactant or reagent)
(proteins labeling with; methods, kits and devices using metal-modified solid supports for separating mols.)

IT 9014-00-0DP, Luciferase, conjugates with FluoroTect Green 682741-87-3DP, FluoroTect Green, conjugates with luciferase
RL: BPN (Biosynthetic preparation); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(separation from Hb; methods, kits and devices using metal-modified solid supports for separating mols.)

L53 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:220543 HCAPLUS
DN 140:266731
ED Entered STN: 19 Mar 2004
TI Luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening
IN Somberg, Richard; **Goueli, Said A.**
PA **Promega** Corporation, USA
SO PCT Int. Appl., 71 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM G01N
CC 7-1 (Enzymes)

Section cross-reference(s): 1

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004023098	A2	20040318	WO 2003-US27854	20030905
	WO 2004023098	A3	20040701		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2004101922	A1	20040527	US 2003-655878	20030905
PRAI	US 2002-408662P	P	20020906		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004023098	ICM	G01N

AB The invention provides methods and kits for detecting transferase activity in a sample by measuring ATP using a composition comprising an ATP-dependent bioluminescence-generating enzyme such as a luciferase, a luminogenic mol. such as luciferin or derivative, and one or more transferase quenching agents. The present invention provides compns. with properties of enhanced stability comprising a luciferase, a luciferase substrate, and one or more transferase quenching agents. The invention further provides methods using these novel compns. to measure transferase activity in a sample by detecting ATP by reducing the steps of inhibition of transferase and addition of luciferase and substrate to a single step that is then followed by detection of the resulting luminescence. The process of the invention significantly reduces the time and effort of luciferase-mediated detection of transferase activity in a sample by eliminating the need to sep. inhibit transferase activity before adding luciferase. The invention can be used for high-throughput inhibitor screening. Exemplary determination of the activity of lipid-dependent serine/threonine kinases, tyrosine kinases, and cAMP-dependent protein kinase A is described. The utility of the invention was also determined in identifying inhibitors in a high-throughput screen.

ST transferase detn luciferase luciferin luminescence assay inhibitor screening; serine threonine tyrosine protein kinase detn luciferase luminescence assay

IT Enzymes, biological studies
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(Sugar kinase; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT Surfactants
(anionic, transferase quenching agent; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT Enzymes, biological studies
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(bioluminescence-generating; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT Peptides, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(cAMP-dependent protein kinase-inhibiting (PKI), inhibition by; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT Biological transport
(carrier-mediated, transferase-dependent, determination of; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT Surfactants
(cationic, transferase quenching agent; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT **High throughput screening**
(drug; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT cDNA sequences
(for luciferase derivs.; luciferase-based luminescence assay for

detecting transferase activity and use in inhibitor screening)

IT **Drug screening**
(high throughput; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT Transport proteins
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(ion pump, transferase-dependent; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT Lampyridae
(luciferase from; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT **High throughput screening**
Luminescence, bioluminescence
Luminescence spectroscopy
Test kits
(luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT Protein sequences
(of luciferase derivs.; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT Thermal stability
(of luciferase; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT Phosphorylation, biological
(of transferase; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT Peptides, biological studies
Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(transferase inhibitor; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT Chelating agents
Surfactants
(transferase quenching agent; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT Ion channel
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(transferase-dependent; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT Surfactants
(zwitterionic, transferase quenching agent; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT 673103-68-9
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(amino acid sequence; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT 141349-89-5
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(family; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT 62996-74-1, Staurosporine
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibition by; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT 372092-80-3, Protein kinase
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(lipid-dependent; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT **9026-43-1**, Serine/threonine kinase 9031-44-1, Kinase 9047-61-4, Transferase **37211-65-7**, Polynucleotide kinase 72060-45-8, Lipid kinase 79079-06-4, EGFR kinase **80449-02-1**, Protein tyrosine kinase 101463-26-7, PDGFR tyrosine kinase 114051-78-4 134549-83-0, Dual-specificity protein kinase 138359-29-2, c-KIT kinase 140208-17-9, Gene Lyn protein kinase 141349-87-3, Gene Fyn protein kinase 141436-78-4, Calcium/phospholipid-dependent protein kinase C 142008-29-5, CAMP-dependent protein kinase A 142805-58-1, MAPK kinase 146702-84-3, MEK kinase 191808-15-8, 3-**Phosphoinositide** -dependent protein **kinase** 1 475489-73-7, Calcium/calmodulin-dependent protein kinase II

RL: **ANT (Analyte)**; BUU (Biological use, unclassified); **ANST (Analytical study)**; BIOL (Biological study); USES (Uses)
(luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT 56-65-5, 5'-ATP, biological studies 2591-17-5, D-Luciferin 2591-17-5D, D-Luciferin, derivs. 9014-00-0, Luciferase 61970-00-1, Luciferase
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT 673103-67-8
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(nucleotide sequence; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT 57-09-0, Cetyltrimethylammonium bromide 60-00-4, EDTA, biological studies 67-42-5, EGTA 83-44-3 151-21-3, SDS, biological studies 1119-94-4, Dodecyltrimethylammonium bromide 7281-04-1, Benzyldimethyldodecylammonium bromide 14933-08-5, Sulfobetaine 3-10
RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(transferase quenching agent; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT 673104-83-1 673104-84-2 673104-85-3
RL: PRP (Properties)
(unclaimed nucleotide sequence; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

IT 673104-80-8 673104-81-9 673104-82-0
RL: PRP (Properties)
(unclaimed protein sequence; luciferase-based luminescence assay for detecting transferase activity and use in inhibitor screening)

L53 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:60021 HCAPLUS
DN 140:124540
ED Entered STN: 26 Jan 2004
TI An assay for detecting transferase using a peptide substrate and peptidase, and drug screening applications
IN **Goueli, Said A.**; Bulleit, Robert F.
PA USA
SO U.S. Pat. Appl. Publ., 39 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM C12Q001-48
ICS C12Q001-37
NCL 435015000; 435023000
CC 7-1 (Enzymes)
Section cross-reference(s): 1, 63
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2004014159	A1	20040122	US 2002-199970	20020719
WO 2004009540	A2	20040129	WO 2003-US22315	20030717
WO 2004009540	A3	20041104		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2002-199970 A 20020719
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2004014159	ICM	C12Q001-48
	ICS	C12Q001-37
	NCL	435015000; 435023000

AB A method for detecting transferase activity of a sample includes contacting the sample with a substrate and at least one of a phosphate group donor and a phosphate group acceptor. The substrate includes a

reporter compound and amino acids. A peptidase is added that cleaves a non-phosphorylated substrate at a first rate and a phosphorylated substrate and a second rate. The output of the reporter compound is detected. In a preferred embodiment, the transferase activity detected is a kinase activity. In another preferred embodiment, the transferase activity detected is a phosphatase activity. Also provided is a method of screening for alterations in a transferase reaction. Kits and peptide substrate are also provided for carrying out at least one of the methods of the invention.

ST transferase kinase phosphatase detn peptidase peptide drug screening

IT **Drug screening**
Fluorescent indicators
Luminescent substances
Phosphorylation, biological
Test kits
(assay for detecting transferase using peptide substrate and peptidase, and drug screening applications)

IT Amino acids, uses
Phosphopeptides
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(assay for detecting transferase using peptide substrate and peptidase, and drug screening applications)

IT Phosphate group
(donors and acceptors; assay for detecting transferase using peptide substrate and peptidase, and drug screening applications)

IT Peptides, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(labeled; assay for detecting transferase using peptide substrate and peptidase, and drug screening applications)

IT Immobilization, molecular or cellular
(of substrate; assay for detecting transferase using peptide substrate and peptidase, and drug screening applications)

IT 300865-11-6, PTP-1B
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(PTP-1B; assay for detecting transferase using peptide substrate and peptidase, and drug screening applications)

IT 9013-05-2, Phosphatase 9031-44-1, Kinase 9047-61-4, Transferase **80449-02-1**, Tyrosine kinase 142008-29-5, CAMP-dependent Protein kinase 300859-91-0, PTP-CD45 362674-81-5, Protein phosphatase 2A
RL: **ANT (Analyte)**; BUU (Biological use, unclassified); **ANST (Analytical study)**; BIOL (Biological study); USES (Uses)
(assay for detecting transferase using peptide substrate and peptidase, and drug screening applications)

IT 9031-94-1, Aminopeptidase 9031-96-3, Peptidase 9031-98-5, Carboxypeptidase 9054-63-1, Aminopeptidase M 65189-71-1 83155-88-8 647865-07-4 647865-08-5 647865-09-6 647865-10-9 647865-11-0 647865-12-1 647865-13-2 647865-14-3 647865-15-4 647865-16-5 647865-17-6 647865-18-7D, complex with luciferin
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(assay for detecting transferase using peptide substrate and peptidase, and drug screening applications)

IT 13558-31-1, Rhodamine 110 26093-31-2, 7-Amino-4-methylcoumarin
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(fluorescent label; assay for detecting transferase using peptide substrate and peptidase, and drug screening applications)

IT 21820-51-9, Phosphotyrosine
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(substrate; assay for detecting transferase using peptide substrate and peptidase, and drug screening applications)

IT 649167-62-4 649167-63-5
RL: PRP (Properties)
(unclaimed protein sequence; assay for detecting transferase using a peptide substrate and peptidase, and drug screening applications)

IT 60-18-4, L-Tyrosine, properties 84166-60-9 648899-80-3 649167-64-6 649167-65-7 649167-66-8 649167-67-9 649167-68-0 649167-70-4 649167-71-5 649167-72-6 649167-76-0 649167-77-1 649167-80-6
RL: PRP (Properties)
(unclaimed sequence; assay for detecting transferase using a peptide substrate and peptidase, and drug screening applications)

L53 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:429121 HCAPLUS
DN 137:16482
ED Entered STN: 07 Jun 2002
TI Inhibition of RNase using RNA heteropolymer in reverse transcription

reaction
IN Miller, Katherine M.
PA **Promega** Corporation, USA
SO PCT Int. Appl., 61 pp.
CODEN: PIXXD2
DT Patent
LA English
IC C12Q001-68
CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 7
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002044421	A2	20020606	WO 2001-US44753	20011128
	WO 2002044421	A3	20030904		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2002025776	A5	20020611	AU 2002-25776	20011128
	US 2002137076	A1	20020926	US 2001-995912	20011128
PRAI	US 2000-253451P	P	20001128		
	US 2001-995912	A	20011128		
	WO 2001-US44753	W	20011128		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2002044421	IC	C12Q001-68

AB The present invention relates to compns. and methods for altering enzyme reactions. In particular, the invention relates to composition and methods for using RNA polymers to inhibit RNase enzymes, to remove RNA-binding enzymes and proteins from solution and to enhance certain enzymic reactions. The invention demonstrated that polyI:polyC increased the reverse-transcriptase reaction of target RNA and a variety of RNA polymers and polymer concns. can be used in the enhancement of RT-PCR reactions. The invention also demonstrated that polyI or polyG significantly lowered the RNase activity of RNase A on a polyA template. The invention also demonstrated that polyG and RNASIN RNase inhibitor completely inhibited the RNase activity of angiogenin in vitro.
ST RTPCR RNase inhibition RNA heteropolymer; angiogenin inhibition polyG RNASIN RTPCR
IT Polymers, biological studies
RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(RNA resin, inhibiting RNase; inhibition of RNase using RNA heteropolymer in reverse transcription reaction)
IT PCR (polymerase chain reaction)
(RT-PCR (reverse transcription-PCR); inhibition of RNase using RNA heteropolymer in reverse transcription reaction)
IT RNA
RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(attached to a solid support; inhibition of RNase using RNA heteropolymer in reverse transcription reaction)
IT **Test kits**
(for RT-PCR; inhibition of RNase using RNA heteropolymer in reverse transcription reaction)
IT Angiogenic factors
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(inhibition of RNase activity of; inhibition of RNase using RNA heteropolymer in reverse transcription reaction)
IT Primers (nucleic acid)
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(inhibition of RNase using RNA heteropolymer in reverse transcription reaction)
IT Double stranded RNA
RL: ARU (Analytical role, unclassified); BUU (Biological use,

unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(inhibition of RNase using RNA heteropolymer in reverse transcription reaction)

IT Plastics, uses
RL: DEV (Device component use); USES (Uses)
(surface of, RNA heteropolymer attached to; inhibition of RNase using RNA heteropolymer in reverse transcription reaction)

IT **9001-99-4**
RL: **ANT (Analyte)**; BSU (Biological study, unclassified); **ANST (Analytical study)**; BIOL (Biological study)
(A, inhibition of; inhibition of RNase using RNA heteropolymer in reverse transcription reaction)

IT 9068-38-6, Reverse transcriptase
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(AMV and MMLV; inhibition of RNase using RNA heteropolymer in reverse transcription reaction)

IT 24939-03-5, Poly (CI) 25191-14-4, Poly G 26427-29-2, Poly (CU) 26680-26-2, Poly (GU) 26680-28-4, Poly (GI) 30918-54-8
RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(in RNA heteropolymer; inhibition of RNase using RNA heteropolymer in reverse transcription reaction)

IT 120178-77-0, RNAsin 142298-75-7, Ribonuclease inhibitor
RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(inhibiting RNase; inhibition of RNase using RNA heteropolymer in reverse transcription reaction)

IT 435237-11-9 435237-12-0 435237-13-1 435237-14-2 435237-15-3 435237-16-4
RL: PRP (Properties)
(unclaimed nucleotide sequence; inhibition of RNase using RNA heteropolymer in reverse transcription reaction)

L53 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:924094 HCAPLUS
DN 136:50649
ED Entered STN: 21 Dec 2001
TI Method for increasing luminescence assay sensitivity
IN Hawkins, Erika; Centanni, John M.; Sankbeil, Jacqueline; Wood, Keith V.
PA **Promega** Corporation, USA
SO PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM G01N033-48
CC 9-5 (Biochemical Methods)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001096862	A2	20011220	WO 2001-US18363	20010607
	WO 2001096862	A3	20020718		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2411179	AA	20011220	CA 2001-2411179	20010607
	EP 1297337	A2	20030402	EP 2001-942027	20010607
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004503777	T2	20040205	JP 2002-510941	20010607
	US 2004096924	A1	20040520	US 2003-692587	20031024
PRAI	US 2000-590884	A	20000609		
	WO 2001-US18363	W	20010607		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2001096862	ICM	G01N033-48
JP 2004503777	FTERM	2G054/AA06; 2G054/EA01; 2G054/EA02; 4B063/QA20;

4B063/QQ61; 4B063/QQ91; 4B063/QR02; 4B063/QR58;
4B063/QS26; 4B063/QS36; 4B063/QX02
US 2004096924 ECLA G01N033/58D
AB A method for increasing the sensitivity of a luminescent assay comprising carrying out the assay in the presence of an organic compound that reduces luminescence that is not dependent on the presence of an analyte by at least about 10 fold, and that reduces luminescence that is dependent on the presence of an analyte by less than about 7 fold.
ST luminescence assay
IT Luminescence
(Autoluminescence; method for increasing luminescence assay sensitivity)
IT Enzymes, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Luminescent; method for increasing luminescence assay sensitivity)
IT Molecules
(Luminogenic; method for increasing luminescence assay sensitivity)
IT Enzymes, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Luminogenic; method for increasing luminescence assay sensitivity)
IT Proteins
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Obelins; method for increasing luminescence assay sensitivity)
IT Buffers
Cell
Concentration (condition)
Containers
Detergents
Luminescence
Luminescence quenching
Luminescence spectroscopy
Oxidation
Packaging materials
Solutions
Solvents
Test kits
Weight
pH
(method for increasing luminescence assay sensitivity)
IT Aequorins
Enzymes, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(method for increasing luminescence assay sensitivity)
IT Gelatins, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(method for increasing luminescence assay sensitivity)
IT Organic compounds, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(method for increasing luminescence assay sensitivity)
IT Albumins, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(serum, bovine; method for increasing luminescence assay sensitivity)
IT 56-65-5, 5'-ATP, uses 521-31-3, Luminol 2591-17-5, Beetle luciferin **9001-78-9**, Alkaline phosphatase 9014-00-0, Luciferase 61869-41-8, Renilla luciferase 61969-99-1, Cypridina luciferase 61970-00-1, Firefly luciferase
RL: **ARG (Analytical reagent use)**; **ANST (Analytical study)**; USES (Uses)
(method for increasing luminescence assay sensitivity)
IT 62-56-6, Thiourea, analysis 67-68-5, DMSO, analysis 105-81-7, 1-Allyl-3-(2-hydroxyethyl)-2-thiourea 3180-51-6, 6-Azathiothymidine 7722-84-1, Hydrogen peroxide, analysis 7732-18-5, Water, analysis 7775-14-6, Sodium hydrosulfite 9005-64-5, Tween 20 55779-48-1, Coelenterazine 71833-44-8, Zwittergent
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(method for increasing luminescence assay sensitivity)

L53 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:886545 HCAPLUS
DN 136:17258
ED Entered STN: 07 Dec 2001
TI Assay for kinases and phosphatases using a product immobilization
IN **Goueli, Said**; **Vidugiriene, Jolanta**; **Karassina, Natasha**
PA **Promega** Corporation, USA
SO PCT Int. Appl., 53 pp.

CODEN: PIXXD2
DT Patent
LA English
IC ICM C12Q001-00
CC 7-1 (Enzymes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001092560	A2	20011206	WO 2001-US17554	20010531
	WO 2001092560	A3	20020801		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2410823	AA	20011206	CA 2001-2410823	20010531
	US 2002028477	A1	20020307	US 2001-871424	20010531
	US 6720162	B2	20040413		
	EP 1290213	A2	20030312	EP 2001-939747	20010531
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004500859	T2	20040115	JP 2002-500751	20010531
	US 2004086954	A1	20040506	US 2003-693214	20031024
PRAI	US 2000-208405P	P	20000531		
	US 2001-871424	A3	20010531		
	WO 2001-US17554	W	20010531		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2001092560	ICM	C12Q001-00
US 2002028477	ECLA	C12Q001/42; C12Q001/48B
JP 2004500859	FTERM	4B063/QA01; 4B063/QQ27; 4B063/QQ33; 4B063/QQ73; 4B063/QR42; 4B063/QR47; 4B063/QR57; 4B063/QS36; 4B063/QS39; 4B063/QX07; 4B063/QX10
US 2004086954	ECLA	C12Q001/42; C12Q001/48B

OS MARPAT 136:17258

AB Disclosed is a method and corresponding kit for assaying the presence, activity, or both, of an enzyme classified within an enzyme classification selected from the group consisting of EC 2.7.1, EC 3.1.3, and EC 3.1.4. The method generally includes the steps of reacting an enzyme with a substrate for a time sufficient to yield phosphorylated or dephosphorylated product; contacting the product with a binding matrix, whereby product is adhered to the matrix; and then analyzing the matrix for presence of, amount of, or both the presence and the amount of the product fixed to the matrix, whereby the presence, the activity, or both the presence and activity of the enzyme can be determined

ST kinase phosphatase detn product immobilization

IT Aldehydes, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(aldehyde-activated support; assay for kinases and phosphatases using product immobilization)

IT Immobilization, molecular or cellular
Scintillation detectors
Test kits
(assay for kinases and phosphatases using product immobilization)

IT **Phosphatidylinositols**
RL: **ARG (Analytical reagent use)**; **ANST (Analytical study)**; USES (Uses)
(assay for **kinases** and phosphatases using product immobilization)

IT Antigens
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(assay for kinases and phosphatases using product immobilization)

IT Antibodies and Immunoglobulins
Avidins
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(immobilized; assay for kinases and phosphatases using product immobilization)

IT Phosphate group
(labeled; assay for kinases and phosphatases using product immobilization)

IT Optical imaging devices

(phosphoimager; assay for kinases and phosphatases using product immobilization)
IT Immobilization, molecular or cellular
(protein; assay for kinases and phosphatases using product immobilization)
IT 9013-05-2, Phosphatase 9031-44-1, Kinase (phosphorylating)
9033-46-9 9036-01-5 37205-54-2
37288-19-0 63551-76-8 72060-45-8, Lipid kinase
104645-76-3, Phosphatidylinositol-4-phosphate 5-**kinase 104645-76-3 115926-52-8,**
Phosphatidylinositol 3-**kinase 124248-47-1**
210488-47-4, Phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase
RL: **ANT (Analyte); ANST (Analytical study)**
(assay for kinases and phosphatases using product immobilization)
IT 2964-07-0 377739-39-4D, derivs.
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(assay for kinases and phosphatases using product immobilization)
IT 58-85-5, Biotin
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(assay for kinases and phosphatases using product immobilization)
IT 9013-20-1, Streptavidin
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(immobilized; assay for kinases and phosphatases using product immobilization)
IT 14596-37-3, Phosphorus-32, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(phosphate group labeled by; assay for kinases and phosphatases using product immobilization)
IT 9004-34-6, Cellulose, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(support; assay for kinases and phosphatases using product immobilization)

L53 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:592863 HCAPLUS
DN 133:188867
ED Entered STN: 25 Aug 2000
TI Multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides
IN Lewis, Martin K.; Kephart, Daniel; Rhodes, Richard B.; Shultz, John W.; Leippe, Donna; Mandrekar, Michelle; Andrews, Christine Ann; Hartnett, James R.; Gu, Trent; Wood, Keith V.; Welch, Roy
PA **Promega** Corporation, USA
SO PCT Int. Appl., 220 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C12Q001-68
CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 14
FAN.CNT 18

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000049181	A1	20000824	WO 2000-US4243	20000218
	W: AE, AL, AU, BA, BB, BG, BR, CA, CN, CR, CU, CZ, DM, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6159693	A	20001212	US 1999-252436	19990218
	WO 9946409	A1	19990916	WO 1999-US5304	19990311
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6235480	B1	20010522	US 1999-358972	19990721
	US 6270973	B1	20010807	US 1999-406064	19990927
	CA 2357011	AA	20000824	CA 2000-2357011	20000218
	AU 2000030019	A5	20000904	AU 2000-30019	20000218
	AU 774085	B2	20040617		

EP 1155150 A1 20011121 EP 2000-908726 20000218
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
JP 2003535568 T2 20031202 JP 2000-599904 20000218
PRAI US 1999-252436 A 19990218
WO 1999-US5304 W 19990311
US 1999-358972 A 19990727
US 1999-406064 A 19990927
US 1998-42287 A2 19980313
WO 2000-US4243 W 20000218

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2000049181	ICM	C12Q001-68
US 6159693	ECLA	C12Q001/04; C12Q001/68B6; C12Q001/66; C12Q001/68; C12Q001/68B; C12Q001/68B2F
WO 9946409	ECLA	C12Q001/68; C12Q001/68B; C12Q001/68B6
US 6235480	ECLA	C12Q001/04; C12Q001/66; C12Q001/68; C12Q001/68B; C12Q001/68B6; C12Q001/68B2F
US 6270973	ECLA	C12Q001/04; C12Q001/66; C12Q001/68; C12Q001/68B; C12Q001/68B6; C12Q001/68B2F

AB Processes are disclosed using the depolymn. of a nucleic acid hybrid to qual. and quant. analyze for the presence of predetd. nucleic acid target sequences using a multiplex assay format. Probes are designed to hybridize with the nucleic acid, and an enzyme with 3'.fwdarw.5'-exonuclease activity depolymerizes the 3'-terminus of the probe hybridized to the target nucleic acid to release one or more identifier nucleotides whose presence or absence can then be determined as an anal. output that indicates the presence or absence of the target sequence. Applications of those processes include the detection of single nucleotide polymorphisms, identification of single base changes, speciation, genotyping, medical marker diagnostics, and the like. Examples are provided for the detection of targets associated with blood coagulation (e.g., coagulation factor V Leiden or prothrombin), targets useful for speciation (mitochondrial cytochrome b gene), and targets associated with congenital adrenal hyperplasia (the steroid 21-hydroxylase gene).

ST nucleic acid detection hybridization probe depolymn; coagulation factor Leiden gene detection hybridization probe; cytochrome b mitochondrial DNA detection hybridization probe; adrenal hyperplasia steroid hydroxylase hybridization probe

IT Gene, animal
RL: ANT (Analyte); ANST (Analytical study)
(BCR; multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT Nucleotides, biological studies
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(analogs, oligonucleotide probes containing; multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT Adrenal cortex, disease
(congenital adrenal hyperplasia, target nucleic acids associated with; multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT Conformation
(hairpin loop, probes containing; multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT Cystic fibrosis
Cytomegalovirus
Fluorometry
Luminescence spectroscopy
Mass spectrometry
Nucleic acid hybridization
Test kits
UV and visible spectroscopy
(multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT DNA
Nucleic acids
RNA
RL: ANT (Analyte); ANST (Analytical study)
(multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT Probes (nucleic acid)
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical

study); BIOL (Biological study); USES (Uses)
(multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT Nucleoside triphosphates
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(oligonucleotide probes containing labeled; multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT Mutation
(point; multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT Genetic polymorphism
(single nucleotide; multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT Evolution
(speciation, target nucleic acids associated with; multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT Blood coagulation
(target nucleic acids associated with; multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT 9026-51-1, Nucleotide diphosphate kinase
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Pyrococcus furiosis; multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT 288410-78-6 288410-79-7 288410-80-0 288410-81-1
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(hairpin-containing probe; multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT 58-64-0, 5'-ADP, uses 9012-90-2, DNA polymerase 9015-83-2, PRPP synthase **9037-44-9**, Exonuclease III 14000-31-8, Pyrophosphate 79393-91-2, 3'.fwdarw.5'-Exonuclease
RL: **ARG (Analytical reagent use)**; **ANST (Analytical study)**; USES (Uses)
(multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT 288599-61-1 288599-62-2 288599-63-3
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT 288599-66-6 288599-67-7 312545-84-9, PN: WO9946409 SEQID: 43 unclaimed DNA 312545-86-1, PN: WO9946409 SEQID: 47 unclaimed DNA 337430-20-3, PN: WO9946409 SEQID: 49 unclaimed DNA 351122-77-5, 3: PN: US6312902 SEQID: 10 unclaimed DNA 351122-78-6, 4: PN: US6312902 SEQID: 11 unclaimed DNA 351122-81-1, 5: PN: US6312902 SEQID: 12 unclaimed DNA 351122-82-2, 6: PN: US6312902 SEQID: 13 unclaimed DNA 351122-83-3 351122-84-4
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(probe for coagulation factor V Leiden gene; multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT 288600-79-3, GenBank AR153226 288600-80-6, GenBank AR153227
289067-15-8 289067-16-9 289067-17-0 289067-18-1 351123-75-6
351123-76-7 351123-79-0 351123-81-4 351123-90-5 351123-91-6
351123-92-7 351123-93-8 351123-94-9 351123-95-0 351123-96-1
351123-97-2 351123-98-3 351123-99-4 351124-00-0 351124-01-1
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(probe for congenital adrenal hyperplasia; multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT 288599-96-2 288599-97-3 288600-09-9 288600-10-2
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(probe for cystic fibrosis mutation .DELTA.F508; multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT 288599-55-3 288599-56-4 288599-57-5 288599-58-6 288599-59-7

288599-60-0 351122-61-7 351122-64-0 351122-65-1
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(probe for cytomegalovirus; multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT 244031-09-2, PN: WO9946409 SEQID: 6 unclaimed DNA 244031-24-1, PN: WO9946409 SEQID: 18 unclaimed DNA
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(probe for globin mRNA; multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT 170086-75-6 170086-76-7 288600-05-5 288600-06-6 289067-14-7
351123-00-7 351123-01-8 351123-02-9 351123-03-0, 2: PN: WO0049182 SEQID: 7 unclaimed DNA 351123-04-1 351123-05-2, 75: PN: US6312902 SEQID: 1 unclaimed DNA 351123-06-3, 76: PN: US6312902 SEQID: 2 unclaimed DNA
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(probe for prothrombin; multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT 288410-89-9 288410-90-2 288410-91-3 288410-92-4 351123-71-2, GenBank AR153195 351123-73-4, GenBank AR153197 351123-89-2
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(probe; multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT 288410-82-2, DNA (synthetic self-annealing primer) 288410-85-5 288410-86-6 288601-03-6 288601-04-7, DNA (synthetic self-annealing primer)
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(self-annealing primer; multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT 123512-83-4 123512-84-5 288410-95-7 288410-96-8 288410-97-9 288410-98-0 288410-99-1 288411-00-7 288411-01-8
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(species-specific probe for mitochondrial cytochrome b gene; multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT 351123-82-5 351123-83-6 351123-84-7 351123-85-8 351123-86-9 351123-87-0 351123-88-1
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(target for congenital adrenal hyperplasia; multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

IT 9001-26-7, Prothrombin 9029-68-9, Steroid 21-hydroxylase 9035-37-4, Cytochrome b 166799-93-5, Blood-coagulation factor V Leiden
RL: ANT (Analyte); ANST (Analytical study)
(target nucleic acids encoding; multiplex method for detection of target nucleic acid hybrids with probes containing 3'-terminal region identifier nucleotides)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Bi, W; NUCLEIC ACIDS RESEARCH 1998, V26(12), P3073 HCAPLUS
(2) Davis, R; US 5391480 A 1995 HCAPLUS
(3) Genetics Inst; WO 9005530 A 1990 HCAPLUS
(4) Manrekar, M; WO 9946409 A 1999 HCAPLUS
(5) Perkin Elmer Corp; WO 9854362 A 1998 HCAPLUS
(6) Rijks Universiteit Leiden; WO 9521938 A 1995 HCAPLUS
(7) Tanabe Seiyaku Co; EP 0663447 A 1995 HCAPLUS
(8) Vary, C; US 4735897 A 1988 HCAPLUS

L53 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:595421 HCAPLUS
DN 131:224452
ED Entered STN: 21 Sep 1999
TI Nucleic acid detection using a primer pyrophosphorylation/pyrophosphorolysis system
IN Shultz, John W.; Manrekar, Michelle A.; Leippe, Donna M.; Lewis, Martin K.; Nelson, Lisa S.

PA **Promega** Corporation, USA
SO PCT Int. Appl., 167 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C12Q001-68
CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 7, 9
FAN.CNT 18

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9946409	A1	19990916	WO 1999-US5304	19990311
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6335162	B1	20020101	US 1998-42287	19980313
	US 6159693	A	20001212	US 1999-252436	19990218
	CA 2322797	AA	19990916	CA 1999-2322797	19990311
	AU 9930792	A1	19990927	AU 1999-30792	19990311
	AU 767337	B2	20031106		
	EP 1064400	A1	20010103	EP 1999-912413	19990311
	R: CH, DE, FR, GB, IT, LI, SE				
	JP 2002505889	T2	20020226	JP 2000-535775	19990311
	CA 2357011	AA	20000824	CA 2000-2357011	20000218
	WO 2000049181	A1	20000824	WO 2000-US4243	20000218
	W: AE, AL, AU, BA, BB, BG, BR, CA, CN, CR, CU, CZ, DM, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 2000030019	A5	20000904	AU 2000-30019	20000218
	AU 774085	B2	20040617		
	EP 1155150	A1	20011121	EP 2000-908726	20000218
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2003535568	T2	20031202	JP 2000-599904	20000218
	US 2003077621	A1	20030424	US 2002-152297	20020520
PRAI	US 1998-42287	A2	19980313		
	US 1999-252436	A	19990218		
	WO 1999-US5304	W	19990311		
	US 1999-358972	A	19990721		
	US 1999-383316	A3	19990825		
	US 1999-406064	A	19990927		
	WO 2000-US4243	W	20000218		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9946409	ICM	C12Q001-68
WO 9946409	ECLA	C12Q001/68; C12Q001/68B; C12Q001/68B6
US 6335162	ECLA	C12Q001/68; C12Q001/68B; C12Q001/68B6
US 6159693	ECLA	C12Q001/04; C12Q001/68B6; C12Q001/66; C12Q001/68; C12Q001/68B; C12Q001/68B2F
US 2003077621	ECLA	C12Q001/04; C12Q001/66; C12Q001/68; C12Q001/68B; C12Q001/68B2F; C12Q001/68B6

AB This invention discloses methods for detecting specific nucleic acid sequences, interrogating the identity of a specific base within a sequence, and assaying endonuclease and exonuclease activity. DNA or RNA probes are hybridized to target nucleic acid sequences. Probes that are complementary to the target sequence at each base are depolymd., while probes which differ from the target at the interrogation position are not depolymd. The nucleic acid detection systems utilize the pyrophosphorolysis reaction catalyzed by various polymerases to produce deoxyribonucleoside triphosphates or ribonucleoside triphosphates, and the dNTPs are transformed to ATP by the action of nucleoside diphosphate kinase. The ATP produced by these reactions is detected by luciferase or NADH based detection systems.

ST nucleic acid detection primer pyrophosphorylation system; nuclease detection primer pyrophosphorylation system; exonuclease detection primer pyrophosphorylation system; endonuclease detection primer

pyrophosphorylation; polyadenylate RNA detection pyrophosphorylation system

IT Phosphorylation, biological
Phosphorylation, biological
(-dephosphorylation, pyrophosphorylation-pyrophosphorolysis; nucleic acid detection using a primer pyrophosphorylation/pyrophosphorolysis system)

IT Dephosphorylation, biological
Dephosphorylation, biological
(-phosphorylation, pyrophosphorylation-pyrophosphorolysis; nucleic acid detection using a primer pyrophosphorylation/pyrophosphorolysis system)

IT DNA
RL: ANT (Analyte); ANST (Analytical study)
(circular; nucleic acid detection using a primer pyrophosphorylation/pyrophosphorolysis system)

IT Mutation
Nucleic acid hybridization
Plasmids
Test kits
(nucleic acid detection using a primer pyrophosphorylation/pyrophosphorolysis system)

IT DNA
Nucleic acids
RNA
RL: ANT (Analyte); ANST (Analytical study)
(nucleic acid detection using a primer pyrophosphorylation/pyrophosphorolysis system)

IT Primers (nucleic acid)
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(nucleic acid detection using a primer pyrophosphorylation/pyrophosphorolysis system)

IT Probes (nucleic acid)
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(nucleic acid detection using a primer pyrophosphorylation/pyrophosphorolysis system)

IT mRNA
RL: ANT (Analyte); ANST (Analytical study)
(poly(A)-containing; nucleic acid detection using a primer pyrophosphorylation/pyrophosphorolysis system)

IT **9001-59-6**, Pyruvate kinase 9013-02-9, Adenylate kinase
RL: **ARG (Analytical reagent use); ANST (Analytical study)**; USES (Uses)
(amplification of ATP using; nucleic acid detection using a primer pyrophosphorylation/pyrophosphorolysis system)

IT 9026-81-7, Nuclease 9055-11-2, Endonuclease 37228-74-3, Exonuclease
RL: ANT (Analyte); ANST (Analytical study)
(nucleic acid detection using a primer pyrophosphorylation/pyrophosphorolysis system)

IT 56-65-5, 5'-ATP, analysis 1927-31-7, 5'-DATP
RL: ANT (Analyte); ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(nucleic acid detection using a primer pyrophosphorylation/pyrophosphorolysis system)

IT 58-68-4, NADH 9012-90-2, DNA polymerase 9014-00-0, Luciferase 9015-83-2, PRPP synthase 9026-30-6, Poly(A) polymerase 9026-50-0, Nucleoside monophosphate kinase 9026-51-1, Nucleoside diphosphate kinase 9031-82-7, Phosphoribosylpyrophosphate transferase 9037-17-6, Nucleic acid polymerase 9068-38-6, Reverse transcriptase
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(nucleic acid detection using a primer pyrophosphorylation/pyrophosphorolysis system)

IT 158768-61-7 244030-99-7, PN: WO9946409 SEQID: 1 unclaimed DNA 244031-04-7, PN: WO9946409 SEQID: 2 unclaimed DNA 244031-05-8, PN: WO9946409 SEQID: 3 unclaimed DNA 244031-07-0, PN: WO9946409 SEQID: 4 unclaimed DNA 244031-08-1, PN: WO9946409 SEQID: 5 unclaimed DNA 244031-09-2, PN: WO9946409 SEQID: 6 unclaimed DNA 244031-10-5, PN: WO9946409 SEQID: 7 unclaimed DNA 244031-11-6, PN: WO9946409 SEQID: 8 unclaimed DNA 244031-12-7, PN: WO9946409 SEQID: 9 unclaimed DNA 244031-13-8, PN: WO9946409 SEQID: 10 unclaimed DNA 244031-14-9, PN: WO9946409 SEQID: 11 unclaimed DNA 244031-15-0, PN: WO9946409 SEQID: 12 unclaimed DNA 244031-16-1, PN: WO9946409 SEQID: 13 unclaimed DNA 244031-17-2, PN: WO9946409 SEQID: 14 unclaimed DNA 244031-21-8, PN: WO9946409 SEQID: 15 unclaimed DNA 244031-22-9, PN: WO9946409 SEQID: 16 unclaimed DNA 244031-23-0, PN: WO9946409 SEQID: 17 unclaimed DNA 244031-24-1, PN: WO9946409 SEQID: 18 unclaimed DNA 244031-25-2, PN: WO9946409 SEQID: 19 unclaimed DNA 244031-26-3, PN: WO9946409 SEQID: 20

unclaimed DNA 244031-27-4, PN: WO9946409 SEQID: 21 unclaimed DNA
244031-28-5, PN: WO9946409 SEQID: 22 unclaimed DNA 244031-29-6, PN:
WO9946409 SEQID: 23 unclaimed DNA 244031-30-9, PN: WO9946409 SEQID: 24
unclaimed DNA 244031-31-0 244031-42-3, PN: US5955652 SEQID: 27
unclaimed DNA 244031-44-5, PN: US5955652 SEQID: 28 unclaimed DNA
244031-45-6, PN: US5955652 SEQID: 31 unclaimed DNA 244031-46-7, PN:
US5955652 SEQID: 32 unclaimed DNA 244031-47-8 244031-48-9, PN:
US5955652 SEQID: 35 unclaimed DNA 244031-49-0, PN: US5955652 SEQID: 36
unclaimed DNA 244031-50-3, PN: US5955652 SEQID: 37 unclaimed DNA
244031-51-4, PN: US5955652 SEQID: 38 unclaimed DNA 244031-52-5, PN:
US5955652 SEQID: 39 unclaimed DNA 244031-53-6, PN: US5955652 SEQID: 40
unclaimed DNA 244031-54-7, PN: US5955652 SEQID: 41 unclaimed DNA
244031-55-8, PN: US5955652 SEQID: 42 unclaimed DNA 244031-56-9, PN:
WO9946409 SEQID: 43 unclaimed DNA 244031-60-5, PN: WO9946409 SEQID: 43
unclaimed DNA 244031-66-1, PN: US5955652 SEQID: 46 unclaimed DNA
244064-92-4 244064-93-5 244072-54-6, PN: US5955652 SEQID: 34 unclaimed
DNA 312545-84-9 312545-86-1 337430-19-0, 81: PN: US6312902 SEQID: 7
unclaimed DNA 337430-20-3, 82: PN: US6312902 SEQID: 8 unclaimed DNA
RL: PRP (Properties)
(unclaimed nucleotide sequence; nucleic acid detection using a primer
pyrophosphorylation/pyrophosphorolysis system)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Blondin; Analytical Biochemistry 1994, V220, P219 HCAPLUS
(2) Chittock; Analytical Biochemistry 1998, V255, P120 HCAPLUS
(3) Nyren; Analytical Biochemistry 1997, V244, P367 HCAPLUS
(4) Ronaghi; Analytical Biochemistry 1996, V242, P84 HCAPLUS
(5) Rozovskaya; Biochem J 1984, V224, P645 HCAPLUS
(6) Tabor; J Biol Chemistry 1990, V265(14), P8322 HCAPLUS
(7) Vary; US 4735897 A 1998 HCAPLUS

L53 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:511251 HCAPLUS
DN 131:140466
ED Entered STN: 18 Aug 1999
TI Materials and methods for identifying and analyzing intermediate tandem repeat DNA markers in the human genome
IN Schumm, James W.; Bacher, Jeffrey W.
PA **Promega** Corporation, USA
SO PCT Int. Appl., 111 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C12N015-12
ICS C12N015-10; C12Q001-68
CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 13

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9940194	A1	19990812	WO 1999-US2345	19990204
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6238863	B1	20010529	US 1998-18584	19980204
	CA 2319111	AA	19990812	CA 1999-2319111	19990204
	AU 9926565	A1	19990823	AU 1999-26565	19990204
	AU 758639	B2	20030327		
	EP 1058727	A1	20001213	EP 1999-906720	19990204
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2002502606	T2	20020129	JP 2000-530608	19990204
	US 2002012924	A1	20020131	US 2001-784423	20010215
	US 6767703	B2	20040727		
PRAI	US 1998-18584	A	19980204		
	WO 1999-US2345	W	19990204		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9940194	ICM	C12N015-12
	ICS	C12N015-10; C12Q001-68

WO 9940194 ECLA C12N015/10C; C12Q001/68A8; C12Q001/68D2E
US 6238863 ECLA C12N015/10C; C12Q001/68A8; C12Q001/68D2E
US 2002012924 ECLA C12N015/10C; C12Q001/68A8; C12Q001/68D2E

AB The present invention is directed to materials and methods for the identification and anal. of intermediate tandem repeat sequences in DNA, wherein an intermediate tandem repeat (ITR) sequence is a region of a DNA sequence containing at least one five to seven base repeat unit appearing in tandem at least two times. DNA markers to highly polymorphic ITR loci in the human genome are identified and analyzed, using particularly preferred embodiments of the materials and methods of the present invention. The ITR are detected and/or isolated by restriction endonuclease fragmentation of a sample of DNA, ligating a linker containing a priming sequence to at least one end of each of the DNA fragment, amplification of the linker ligated fragment, and hybridization selection, cloning, and sequencing of each DNA fragment selected. A low incidence of stutter artifacts (<1.1%) is achieved during the detection procedure.

ST ITR tandem repeat DNA marker; sequence ITR tandem repeat human genome; hybridization selection ITR tandem repeat; amplification ITR tandem repeat

IT Nucleic acid amplification (method)
(DNA; materials and methods for identifying and analyzing intermediate tandem repeat DNA markers in the human genome)

IT Genetic markers
Molecular cloning
Nucleic acid hybridization
Test kits
(materials and methods for identifying and analyzing intermediate tandem repeat DNA markers in the human genome)

IT Primers (nucleic acid)
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(materials and methods for identifying and analyzing intermediate tandem repeat DNA markers in the human genome)

IT DNA sequences
(of DNA markers for intermediate tandem repeats in the human genome)

IT Repetitive DNA
RL: ANT (Analyte); BOC (Biological occurrence); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(tandem, intermediate; materials and methods for identifying and analyzing intermediate tandem repeat DNA markers in the human genome)

IT **9075-08-5**, Restriction endonuclease 81295-28-5, Restriction endonuclease MboI
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(DNA fragmentation by; materials and methods for identifying and analyzing intermediate tandem repeat DNA markers in the human genome)

IT 236110-13-7
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(linker for MboI-digested DNA fragments; materials and methods for identifying and analyzing intermediate tandem repeat DNA markers in the human genome)

IT 133021-97-3P, DNA (human clone pTRS-47 satellite III) 140284-43-1P
235423-02-6P 235423-14-0P 235423-19-5P 235423-22-0P 235423-23-1P
235423-24-2P 235423-25-3P 235423-26-4P 235423-27-5P 235423-28-6P
235423-29-7P 235423-31-1P 235423-32-2P 235423-33-3P 235423-34-4P
235423-35-5P 235423-36-6P 235423-37-7P 235423-38-8P 235423-39-9P
235423-40-2P 235423-41-3P 235423-42-4P 235423-43-5P 235423-44-6P
235423-45-7P 235423-46-8P 235423-47-9P 235423-48-0P 235423-49-1P
235423-50-4P 235423-51-5P 235423-52-6P 235423-53-7P 235423-55-9P
235423-56-0P 235423-57-1P 235423-58-2P 235423-59-3P
RL: ANT (Analyte); BOC (Biological occurrence); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(nucleotide sequence; materials and methods for identifying and analyzing intermediate tandem repeat DNA markers in the human genome)

IT 235423-60-6 235423-61-7 235423-62-8 235423-69-5 235423-70-8
235423-71-9 235423-72-0 235423-73-1 235423-74-2 235423-75-3
235423-76-4 235423-77-5 235423-87-7 235423-88-8 235423-89-9
235423-90-2 235423-91-3 235423-92-4 235423-93-5 235423-94-6
235423-95-7 235424-12-1 235424-18-7 235424-19-8 235424-20-1
235424-21-2 235424-26-7 235424-28-9 235424-43-8 235424-44-9
235424-45-0 235424-46-1 235424-47-2 235424-52-9 235424-64-3
235424-65-4 235424-67-6 235424-68-7 235424-69-8 235424-70-1

235424-71-2 235424-72-3 235424-73-4 235424-74-5 235424-75-6
235424-76-7 235424-77-8 235424-78-9 235424-79-0 235424-80-3
235424-81-4 235424-82-5 235424-83-6 235424-84-7 235424-85-8
235424-86-9 235424-87-0 235424-90-5 235424-91-6 235424-92-7
235424-93-8 235424-94-9 235424-95-0 235424-96-1 235424-97-2
235425-23-7 235425-24-8 235425-25-9 235425-26-0 235425-27-1
235425-28-2 235425-29-3 235425-30-6 235425-34-0 235425-35-1
235425-36-2 235425-37-3 235425-38-4 235425-39-5 235425-40-8
235425-41-9 235425-42-0 235425-43-1 235425-44-2 235425-45-3
235425-46-4 235425-48-6 235425-58-8 235425-59-9 235425-60-2
235425-61-3 235425-62-4 235425-63-5 235425-64-6 235425-65-7
235425-66-8 235425-67-9 235425-68-0 235425-69-1 235425-76-0
235425-77-1 235425-78-2 235425-79-3
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(primer; materials and methods for identifying and analyzing intermediate tandem repeat DNA markers in the human genome)
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anderson, M; Gene Probe 2: A Practical Approach 1995, P1
(2) Moore, S; Genomics 1991, V10(3), P654 HCAPLUS
(3) Weber, J; American Journal of Human Genetics 1989, V44(3), P388 HCAPLUS
(4) Weissenbach, J; Nature 1992, V359, P794 HCAPLUS

L53 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:524043 HCAPLUS
DN 129:241583
ED Entered STN: 21 Aug 1998
TI Detection of protein tyrosine kinase activity using a high-capacity streptavidin-coated membrane and optimized biotinylated peptide substrates
AU Schaefer, Erik M.; Guimond, Scott
CS Signal Transduction, **Promega** Corporation, Madison, WI, 53711, USA
SO Analytical Biochemistry (1998), 261(1), 100-112
CODEN: ANBCA2; ISSN: 0003-2697
PB Academic Press
DT Journal
LA English
CC 7-1 (Enzymes)
Section cross-reference(s): 9
AB A protein tyrosine kinase (PTK) assay system is described that uses a series of optimized biotinylated peptide substrates in conjunction with a streptavidin-coated matrix (SAM2) biotin capture membrane. The SAM2 biotin capture membrane provides low back-grounds and high linear binding capacity (up to .apprx.3.6 nmol of biotinylated PTK peptide/Cm2), resulting in high signal-to-noise ratios and greater reproducibility. Capture of the phosphorylated peptide substrates onto the SAM2 membrane is rapid and occurs independent of the amino acid sequence of the peptide, thereby overcoming difficulties commonly encountered with other methodologies. Two broad-specificity biotinylated PTK peptide substrates were identified with optimum kinetic properties, allowing members from eight distinct classes of enzymes, including transmembrane (epidermal growth factor receptor (EGFR), fibroblast growth factor receptor, insulin receptor, and platelet-derived growth factor receptor) and cytoplasmic (p43abl, p56lck, p60src, and p93fes) PTKs, to be analyzed. A third biotinylated peptide substrate, shown to be highly selective for the EGFR, was used to illustrate the versatility of this system for both broad specificity and highly selective detection of PTK activity. The ability to accurately detect activity under optimum conditions and with crude cell extract samples, including kinetic anal. and with enzyme detection limits in the low femtomole range, supports the utility of this assay system for studying PTK enzymes. (c) 1998 Academic Press.
ST protein tyrosine kinase assay biotinylated substrate; streptavidin coated membrane bioassay PTK
IT Peptides, biological studies
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(biotinylated substrates; detection of protein tyrosine kinase activity using a high-capacity streptavidin-coated membrane and optimized biotinylated peptide substrates)
IT **Bioassay**
(detection of protein tyrosine kinase activity using a high-capacity streptavidin-coated membrane and optimized biotinylated peptide substrates)
IT Epidermal growth factor receptors

Fibroblast growth factor receptors
Insulin receptors
Platelet-derived growth factor receptors
RL: ANT (Analyte); BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)
(detection of protein tyrosine kinase activity using a high-capacity streptavidin-coated membrane and optimized biotinylated peptide substrates)

IT Proteins, specific or class
RL: ANT (Analyte); BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)
(p43; detection of protein tyrosine kinase activity using a high-capacity streptavidin-coated membrane and optimized biotinylated peptide substrates)

IT Proteins, specific or class
RL: ANT (Analyte); BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)
(p93fes; detection of protein tyrosine kinase activity using a high-capacity streptavidin-coated membrane and optimized biotinylated peptide substrates)

IT Phosphoproteins
RL: ANT (Analyte); BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)
(pp561ck; detection of protein tyrosine kinase activity using a high-capacity streptavidin-coated membrane and optimized biotinylated peptide substrates)

IT Membranes, nonbiological
(streptavidin coated; detection of protein tyrosine kinase activity using a high-capacity streptavidin-coated membrane and optimized biotinylated peptide substrates)

IT **80449-02-1**, Protein tyrosine kinase 141349-89-5, p60src, Protein tyrosine kinase
RL: **ANT (Analyte)**; BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); **ANST (Analytical study)**; BIOL (Biological study); OCCU (Occurrence)
(detection of protein tyrosine kinase activity using a high-capacity streptavidin-coated membrane and optimized biotinylated peptide substrates)

IT 81156-93-6 156953-61-6 173691-86-6 213016-78-5 213016-79-6 213016-80-9
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(detection of protein tyrosine kinase activity using a high-capacity streptavidin-coated membrane and optimized biotinylated peptide substrates)

RE.CNT 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD

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L60 ANSWER 1 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2004:570467** HCAPLUS
DN 141:119302
ED Entered STN: 16 Jul 2004
TI Visual detection assays for RNase using nucleic acid substrates with RNase-cleavable domain flanked by a fluorescence reporter group and a dark fluorescence quencher
IN Walder, Joseph Alan; Behlke, Mark Aaron; Devor, Eric Jeffrey; Huang, Lingyan
PA Integrated DNA Technologies, Inc., USA
SO U.S. Pat. Appl. Publ., 38 pp., Division of U.S. Ser. No. 968,733.
CODEN: USXXCO
DT **Patent**
LA English
IC ICM C12Q001-68
ICS C07H021-04
NCL 435006000; 534727000; 536024300
CC 7-1 (Enzymes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004137479	A1	20040715	US 2003-694480	20031027 <--
	US 6773885	B1	20040810	US 2001-968733	20011001 <--
PRAI	US 2000-236640P	P	20000929 <--		
	US 2001-968733	A3	20011001		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2004137479	ICM	C12Q001-68
	ICS	C07H021-04
	NCL	435006000; 534727000; 536024300

AB The present invention relates to methods for detecting the presence of RNase enzymes, more specifically to methods that provide for a visual detection assay. The methods entail contacting a test sample suspected of containing RNase activity with a substrate containing a RNase-sensitive internucleotide linkage flanked directly or indirectly by a fluorescence reporter group and a dark quencher, such that if a RNase activity is present in the sample, the RNase-sensitive internucleotide linkage is cleaved and the fluorescence reporter group emits a visually detectable signal. The present invention further provides novel nucleic acid compns. used as substrates for such assays and encompasses kits for performing the methods of the invention. The most preferred composition for a single substrate is 5'-FAM-AauggcA-QSY-7-3', where FAM is 6-carboxy-fluorescein and QSY-7 is a diarylrhodamine deriv from Mol. Probes, A is 2'-O-methyladenosine, and 'a', 'c', 'u', and 'g', are the ribonucleotide bases adenosine, cytosine, uridine, and guanosine. The assay is highly sensitive, highly specific, capable of detecting a broad spectrum of RNase enzymes, employs reagents that can be manufactured using com. reagents, is rapid and easy to perform, does not use any hazardous reagents, and can be performed without any specialized equipment. The visual assay is

sensitive to 10 pg/mL RNase A, a level that is suitable for use as a quality control assay and comparable to the sensitivity of existing com. assays which require use of a fluorometer for detection.

ST RNase visual detection assay

IT Fluorescent dyes
(Alexa, fluorescence reporter group; visual detection assays for RNase using nucleic acid substrates with RNase-cleavable domain flanked by a fluorescence reporter group and a dark fluorescence quencher)

IT Oligonucleotides
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(chimeric; visual detection assays for RNase using nucleic acid substrates with RNase-cleavable domain flanked by a fluorescence reporter group and a dark fluorescence quencher)

IT Cyanine dyes
(fluorescence reporter group; visual detection assays for RNase using nucleic acid substrates with RNase-cleavable domain flanked by a fluorescence reporter group and a dark fluorescence quencher)

IT Fluorescence quenching
Fluorescence resonance energy transfer
Fluorescent indicators
Test kits
(visual detection assays for RNase using nucleic acid substrates with RNase-cleavable domain flanked by a fluorescence reporter group and a dark fluorescence quencher)

IT 304014-12-8D, QSY 7 carboxylic acid succinimdyl ester, conjugates with substrate oligonucleotide
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(QSY 7 carboxylic acid succinimdyl ester, fluorescence quenching group; visual detection assays for RNase using nucleic acid substrates with RNase-cleavable domain flanked by a fluorescence reporter group and a dark fluorescence quencher)

IT 6268-49-1, 4-(4'-Dimethylaminophenylazo-Benzoic acid 19889-77-1, 2-Piperidinecarboxamide 24545-86-6, 4',5'-Dinitrofluorescein 721399-62-8
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(fluorescence quenching group; visual detection assays for RNase using nucleic acid substrates with RNase-cleavable domain flanked by a fluorescence reporter group and a dark fluorescence quencher)

IT 2321-07-5, Fluorescein 3301-79-9D, 6-Carboxyfluorescein, conjugates with substrate oligonucleotide 13558-31-1 26761-84-2, Tetrachlorofluorescein 70281-37-7, Tetramethylrhodamine 82354-19-6, Texas Red 129024-06-2, Hexachlorofluorescein 138026-71-8, Bodipy
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(fluorescence reporter group; visual detection assays for RNase using nucleic acid substrates with RNase-cleavable domain flanked by a fluorescence reporter group and a dark fluorescence quencher)

IT 723024-01-9 723024-02-0 723024-03-1 723024-04-2 723024-05-3
723024-06-4 723024-07-5 723024-08-6 723024-09-7 723024-10-0
723024-11-1 723024-12-2 723024-13-3 723024-14-4 723024-15-5
723024-16-6 723024-17-7 723024-18-8 723024-19-9 723024-20-2
723024-21-3 723024-22-4 723024-23-5 723024-24-6
RL: PRP (Properties)
(unclaimed nucleotide sequence; visual detection assays for RNase using nucleic acid substrates with RNase-cleavable domain flanked by a fluorescence reporter group and a dark fluorescence quencher)

IT **9001-99-4**, RNase **9026-12-4**, RNase T1
RL: **ANT (Analyte); ANST (Analytical study)**
(visual detection assays for RNase using nucleic acid substrates with RNase-cleavable domain flanked by a fluorescence reporter group and a dark fluorescence quencher)

IT 721399-61-7D, conjugates with 6-carboxyfluorescein and QSY-7
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(visual detection assays for RNase using nucleic acid substrates with RNase-cleavable domain flanked by a fluorescence reporter group and a dark fluorescence quencher)

L60 ANSWER 2 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2004:451562** HCAPLUS
DN 141:20109
ED Entered STN: 04 Jun 2004
TI Inverse labeling method for the rapid identification of marker/target proteins
IN Wang, Yingqi Karen
PA USA
SO U.S. Pat. Appl. Publ., 63 pp., Cont.-in-part of U.S. Ser. No. 16,627.
CODEN: USXXCO

DT **Patent**
LA English
IC ICM G01N033-53
NCL 435007100
CC 9-8 (Biochemical Methods)
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004106150	A1	20040603	US 2003-412964	20030414 <--
	US 2002090652	A1	20020711	US 2001-16627	20011210 <--
PRAI	US 2000-257559P	P	20001222 <--		
	US 2001-332965P	P	20011119		
	US 2001-16627	A2	20011210		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2004106150	ICM	G01N033-53
	NCL	435007100

AB A novel procedure for performing protein labeling for comparative proteomics termed inverse labeling is provided for the rapid identification of marker or target proteins. With this method, to evaluate protein expression of a disease or a drug treated sample in comparison with a control sample, two converse collaborative labeling expts. are performed in parallel. In one experiment the perturbed sample (by disease or by drug treatment) is isotopically heavy-labeled, whereas, the control is isotopically heavy-labeled in the second experiment When mixed and analyzed with its unlabeled or isotope light counterpart for differential comparison, a characteristic inverse labeling pattern is observed between the two parallel analyses for proteins that are differentially-expressed to an appreciable level. In particularly useful embodiments, protein labeling is achieved through proteolytic 18 O-incorporation into peptides as a result of proteolysis performed in 18 O-water, metabolic incorporation of 15 N (or 13 C and 2 H) into proteins, and chemical tagging proteins with an isotope-coded tag reagent such as an isotope-coded affinity tag reagent. Also provided is a novel procedure for preparing and purifying peptides from a protein solution and a novel procedure for identifying marker or target proteins, particular phosphorylated proteins, which combines the procedure for preparing and purifying peptides from a protein solution with inverse labeling. A novel procedure for performing protein labeling for comparative proteomics termed inverse labeling is provided for the rapid identification of marker or target proteins. With this method, to evaluate protein expression of a disease or a drug treated sample in comparison with a control sample, two converse collaborative labeling expts. are performed in parallel. In one experiment the perturbed sample (by disease or by drug treatment) is isotopically heavy-labeled, whereas, the control is isotopically heavy-labeled in the second experiment When mixed and analyzed with its unlabeled or isotope light counterpart for differential comparison, a characteristic inverse labeling pattern is observed between the two parallel analyses for proteins that are differentially expressed to an appreciable level. In particularly useful embodiments, protein labeling is achieved through proteolytic 18O-incorporation into peptides as a result of proteolysis performed in 18O-water, metabolic incorporation of 15N (or 13C and 2H) into proteins, and chemical tagging proteins with an isotope-coded tag reagent such as an isotope-coded affinity tag reagent.

ST labeling marker target protein
IT Animal cell line
(CHO; inverse labeling method for rapid identification of marker/target proteins)
IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); RCT (Reactant); ANST (Analytical study); BIOL (Biological study); RACT (Reactant or reagent)
(HtrA; inverse labeling method for rapid identification of marker/target proteins)
IT Chromatography
(adsorption, protein separation by; inverse labeling method for rapid identification of marker/target proteins)
IT Precipitation (chemical)
(ammonium sulfate; inverse labeling method for rapid identification of marker/target proteins)
IT Algae
(anal. of cell lysates of; inverse labeling method for rapid identification of marker/target proteins)
IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); RCT (Reactant); ANST (Analytical study); BIOL (Biological study); RACT (Reactant or

reagent)
(cell surface-associated; inverse labeling method for rapid identification of marker/target proteins)
IT Enzymes, uses
RL: CAT (Catalyst use); USES (Uses)
(cleaving labeled proteins; inverse labeling method for rapid identification of marker/target proteins)
IT Cytoplasm
(cytosol, proteins of; inverse labeling method for rapid identification of marker/target proteins)
IT **Immunoassay**
(immunopptn., protein separation by; inverse labeling method for rapid identification of marker/target proteins)
IT Animal tissue
Animal tissue culture
Body fluid
Cell
Databases
Development, mammalian postnatal
Disease, animal
Environment
Feces
Mass spectrometry
Nutrition, animal
Nutrition, microbial
Nutrition, plant
Physiology, animal
Protein degradation
Protein sequence analysis
Saliva
Tandem mass spectrometry
Tear (ocular fluid)
Time-of-flight mass spectrometry
(inverse labeling method for rapid identification of marker/target proteins)
IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); RCT (Reactant); ANST (Analytical study); BIOL (Biological study); RACT (Reactant or reagent)
(inverse labeling method for rapid identification of marker/target proteins)
IT Isotopes
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); RCT (Reactant); ANST (Analytical study); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(inverse labeling method for rapid identification of marker/target proteins)
IT Proteome
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inverse labeling method for rapid identification of marker/target proteins)
IT Peptides, biological studies
RL: BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)
(inverse labeling method for rapid identification of marker/target proteins)
IT Amino acids, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(inverse labeling method for rapid identification of marker/target proteins)
IT Reagents
RL: RCT (Reactant); RACT (Reactant or reagent)
(inverse labeling method for rapid identification of marker/target proteins)
IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)
(labeled; inverse labeling method for rapid identification of marker/target proteins)
IT Fluids
(lavage; inverse labeling method for rapid identification of marker/target proteins)
IT Mass spectrometry
(liquid chromatog. combined with; inverse labeling method for rapid

identification of marker/target proteins)
IT Protein sequence analysis
(mass spectrometric; inverse labeling method for rapid identification of marker/target proteins)
IT Liquid chromatography
(mass spectrometry combined with; inverse labeling method for rapid identification of marker/target proteins)
IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); RCT (Reactant); ANST (Analytical study); BIOL (Biological study); RACT (Reactant or reagent)
(membrane; inverse labeling method for rapid identification of marker/target proteins)
IT Laser ionization mass spectrometry
(photodesorption, matrix-assisted, TOF; inverse labeling method for rapid identification of marker/target proteins)
IT Laser desorption mass spectrometry
(photoionization, matrix-assisted, TOF; inverse labeling method for rapid identification of marker/target proteins)
IT Mass spectrometry
(post source decay; inverse labeling method for rapid identification of marker/target proteins)
IT Affinity chromatography
Ion exchange chromatography
Isoelectric focusing
Reversed phase chromatography
Ultrafiltration
(protein separation by; inverse labeling method for rapid identification of marker/target proteins)
IT Mass spectrometry
(protein sequence anal.; inverse labeling method for rapid identification of marker/target proteins)
IT Chemicals
(protein-cleaving; inverse labeling method for rapid identification of marker/target proteins)
IT Organelle
(proteins of; inverse labeling method for rapid identification of marker/target proteins)
IT Biological materials
(reference; inverse labeling method for rapid identification of marker/target proteins)
IT Drugs
(sample treated with; inverse labeling method for rapid identification of marker/target proteins)
IT Proteins
RL: ANT (Analyte); PEP (Physical, engineering or chemical process); PYP (Physical process); ANST (Analytical study); PROC (Process)
(separation; inverse labeling method for rapid identification of marker/target proteins)
IT Chromatography
(size exclusion, protein separation by; inverse labeling method for rapid identification of marker/target proteins)
IT Affinity
(tag label; inverse labeling method for rapid identification of marker/target proteins)
IT **79747-53-8**, Protein Tyrosine Phosphatase
RL: **ANT (Analyte)**; BSU (Biological study, unclassified); RCT (Reactant); **ANST (Analytical study)**; BIOL (Biological study); RACT (Reactant or reagent)
(inverse labeling method for rapid identification of marker/target proteins)
IT 1333-74-0, Hydrogen, biological studies 7440-44-0, Carbon-12, biological studies 7727-37-9, Nitrogen-14, biological studies 7782-39-0, Deuterium, biological studies 7782-44-7, Oxygen, biological studies 13965-97-4, Sulfur-34, biological studies 13968-48-4, Oxygen-17, biological studies 13981-57-2, Sulfur-32, biological studies 14390-96-6, 15N, biological studies 14762-74-4, 13C, biological studies 14762-75-5, Carbon-14, biological studies 14797-71-8, Oxygen-18, biological studies
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); RCT (Reactant); ANST (Analytical study); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(inverse labeling method for rapid identification of marker/target proteins)
IT 50-99-7, D-Glucose, biological studies 14798-03-9D, Ammonium, salts
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

(Uses)
(inverse labeling method for rapid identification of marker/target proteins)
IT 9002-07-7, Trypsin
RL: CAT (Catalyst use); USES (Uses)
(inverse labeling method for rapid identification of marker/target proteins)
IT 7732-18-5, Water, reactions 14314-42-2, Water-18O
RL: RCT (Reactant); RACT (Reactant or reagent)
(inverse labeling method for rapid identification of marker/target proteins)
IT 7783-20-2, Ammonium sulfate, uses
RL: NUU (Other use, unclassified); USES (Uses)
(protein separation by precipitation with; inverse labeling method for rapid identification of marker/target proteins)
IT 363132-25-6 697765-48-3 697765-50-7 697765-51-8 697765-52-9
697765-53-0 697765-54-1 697765-55-2 697765-56-3 697765-57-4
697765-58-5 697765-59-6 697765-60-9 697765-61-0 697765-62-1
697765-63-2 697765-64-3 697765-65-4 697765-66-5 697765-67-6
697765-68-7 697765-69-8 697765-70-1 697765-71-2 697765-72-3
697765-73-4 697765-74-5 697765-75-6 697765-76-7 697765-77-8
697765-78-9 697765-79-0 697765-80-3 697765-81-4 697765-82-5
697765-83-6 697765-84-7 697765-85-8 697765-86-9 697765-87-0
697765-88-1 697765-89-2 697765-90-5 697765-91-6 697765-92-7
697765-93-8 697765-94-9 697765-95-0 697765-96-1 697765-97-2
697765-98-3 697765-99-4 697766-00-0 697766-01-1 697766-02-2
697766-03-3 697766-04-4 697766-05-5 697766-07-7 697766-08-8
697766-09-9 697766-10-2 697766-11-3 697766-12-4 697766-13-5
697766-14-6 697766-15-7 697766-16-8 697766-17-9 697766-19-1
697766-21-5 697766-23-7 697766-25-9 697766-26-0 697766-27-1
697766-28-2 697766-29-3 697766-31-7 697766-32-8 697766-33-9
697766-34-0 697766-35-1
RL: PRP (Properties)
(unclaimed sequence; inverse labeling method for the rapid identification of marker/target proteins)

L60 ANSWER 3 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2004:250713** HCAPLUS
DN 140:265666
ED Entered STN: 26 Mar 2004
TI cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses
IN Kapeller-Libermann, Rosana; Hunter, John Joseph; Meyers, Rachel E.; Rudolph-Owen, Laura A.; Curtis, Rory A. J.; Olandt, Peter J.; Tsai, Fong Ying; Galvin, Katherine M.; Chun, Miyoung; Williamson, Mark J.; Silos-Santiago, Inmaculada; Bandaru, Rajasekhar
PA Millennium Pharmaceuticals, Inc., USA
SO U.S. Pat. Appl. Publ., 139 pp., Cont.-in-part of U.S. Ser. No. 336,153.
CODEN: USXXCO
DT **Patent**
LA English
IC C12Q001-68; C07H021-04; C12P021-02; C12N005-06; C07K014-705; C07K016-28
NCL 435006000; 435069100; 435320100; 435325000; 530350000; 536023500; 530388220
CC 3-3 (Biochemical Genetics)
Section cross-reference(s): 1, 6, 7, 13
FAN.CNT 57

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 2004058355	A1	20040325	US 2003-423543	20030425	<--
	US 6140056	A	20001031	US 1999-276400	19990325	<--
	US 6403358	B1	20020611	US 1999-412210	19991005	<--
	US 6300092	B1	20011009	US 1999-448076	19991123	<--
	US 2002042099	A1	20020411	US 2001-797039	20010228	<--
	US 6730491	B2	20040504			
	US 2002151007	A1	20021017	US 2001-909743	20010720	<--
	US 2002081658	A1	20020627	US 2001-920346	20010731	<--
	US 2002086405	A1	20020704	US 2001-928531	20010813	<--
	US 2003096391	A1	20030522	US 2001-929218	20010814	<--
	US 2003017572	A1	20030123	US 2001-961656	20010924	<--
	US 2002077312	A1	20020620	US 2001-963159	20010925	<--
	US 2002173630	A1	20021121	US 2001-8016	20011108	<--
	US 2002164750	A1	20021107	US 2001-12055	20011113	<--
	US 6787345	B1	20040907	US 2001-3690	20011115	<--
	US 2003022286	A1	20030130	US 2002-60763	20020130	<--

US	2003003477	A1	20030102	US 2002-105989	20020325 <--
US	2002164632	A1	20021107	US 2002-121911	20020412 <--
US	6607892	B2	20030819		
US	2003087382	A1	20030508	US 2002-217168	20020812
WO	2003027308	A2	20030403	WO 2002-US30054	20020923

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US	2003108934	A1	20030612	US 2002-278036	20021022 <--
US	2003119147	A1	20030626	US 2003-336489	20030102 <--
US	2003113790	A1	20030619	US 2003-336153	20030103 <--
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US	1999-117580P	P	19990127 <--		
US	1999-276400	A2	19990325 <--		
US	1999-365162	B1	19990730 <--		
US	1999-392189	B1	19990909 <--		
US	1999-412210	A3	19991005 <--		
US	1999-448076	A3	19991123 <--		
US	2000-186061P	P	20000229 <--		
US	2000-200688P	P	20000428 <--		
US	2000-205447P	P	20000519 <--		
US	2000-608921	B1	20000630 <--		
US	2000-221925P	P	20000731 <--		
US	2000-234922P	P	20000925 <--		
US	2000-235035P	P	20000925 <--		
US	2000-246669P	P	20001108 <--		
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US	2000-248325P	P	20001114 <--		
US	2000-248893P	P	20001115 <--		
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US	2001-260166P	P	20010105		
US	2001-797039	A2	20010228		
US	2001-845044	B1	20010427		
US	2001-909743	A2	20010720		
US	2001-920346	A2	20010731		
US	2001-928531	B2	20010813		
US	2001-929218	B2	20010814		
US	2001-312539P	P	20010815		
US	2001-963159	B2	20010925		
US	2001-8016	A2	20011108		
US	2001-12055	A2	20011113		
US	2001-3690	A2	20011115		
US	2002-60763	B2	20020130		
US	2002-105989	A2	20020325		
US	2002-121911	A2	20020412		
US	2002-217168	A2	20020812		
US	2002-278036	A2	20021022		
US	2003-336489	A2	20030102		
US	2003-336153	A2	20030103		
WO	1999-US22923	A2	19990930 <--		
US	2001-961656	A	20010924		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2004058355	IC	C12Q001-68IC C07H021-04IC C12P021-02IC C12N005-06IC C07K014-705IC C07K016-28
	NCL	435006000; 435069100; 435320100; 435325000; 530350000; 536023500; 530388220
US 6140056	ECLA	C12N009/06B3 <--
US 6403358	ECLA	C12N009/88 <--
US 6300092	ECLA	C12N009/06B3 <--
US 2002042099	ECLA	C07K016/40; C12N009/12B1 <--
US 2002151007	ECLA	C12N009/06B3 <--
US 2002081658	ECLA	C07K014/705 <--
US 2002086405	ECLA	C12N009/64F2C24M11 <--
US 2003096391	ECLA	C12N009/48 <--
US 2003022286	ECLA	C07K014/72 <--
US 2003003477	ECLA	C12N009/64F2C22 <--
US 2002164632	ECLA	C12N009/88 <--

US 2003108934 ECLA C12N009/12B4 <--
US 2003119147 ECLA C07K014/705; C07K014/72B <--
US 2003113790 ECLA C12N009/02 <--

AB The invention provides isolated nucleic acids mols., designated 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, m1983, 38555 and 593 nucleic acid mols. The invention also provides antisense nucleic acid mols., recombinant expression vectors containing the same, host cells into which the expression vectors have been introduced, and nonhuman transgenic animals in which above genes has been introduced or disrupted. The invention still further provides isolated their encoded proteins, fusion proteins containing the same, and antigenic peptides and antibodies. 21910 Protein is a sequence homolog of membrane-associated guanylate kinase (MAGK). 56634 Protein is a sequence homolog of phosphatidylinositol 4-phosphate 5-kinase. 55053, 2504, 15977, 14760 And 3700 proteins are sequence homologs of protein kinases. 25501 Protein is a sequence homolog of transferases. 17903 Protein is a sequence homolog of aminopeptidases. 21529 Protein is a sequence homolog of adenylate cyclases. 26176 Protein is a sequence homolog of calpain proteases. 26343 Protein is a sequence homolog of oxidoreductases. 56638 Protein is a sequence homolog of neprilysin proteases. 18610 Protein is a sequence homolog of transient receptor potential ion channel family. 33217 Protein is a sequence homolog of AMP-binding enzymes. 21967 Protein is a sequence homolog of lysyl oxidases. Human and mouse 1983 (SLGP) proteins are sequence homologs of G protein-coupled receptors. 38555 And 593 proteins are sequence homologs of transport proteins. Diagnostic and therapeutic methods utilizing compns. of the invention are also provided.

ST human protein kinase cDNA sequence homolog diagnosis therapy; enzyme cDNA sequence homolog human drug screening; mouse human G protein coupled receptor sequence homolog drug

IT Computer program
(ALIGN, PAM120; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)

IT Enzymes, biological studies
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(AMP-binding, sequence homologs, 33217; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins)

IT G protein-coupled receptors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(SLGP, sequence homologs, h1983 and m1983; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins)

IT Ion channel
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(TR (transient receptor), sequence homologs, 18610; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins)

IT Analgesics
Angiogenesis inhibitors
Anti-inflammatory agents
Antiviral agents
Drug screening
Drug targets
Gene therapy
Genetic mapping
Human
Molecular cloning
Mus
Pain
Protein sequences
Test kits
cDNA sequences
(cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217,

21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)
IT Primers (nucleic acid)
Probes (nucleic acid)
RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)
IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)
IT Angiogenic factors
Antisense nucleic acids
Peptides, biological studies
Phosphopeptides
Ribozymes
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)
IT Nervous system, disease
(central, diagnosis, therapy; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)
IT Uterus
(cervix, disease; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)
IT Intestine, disease
(colon, diagnosis, therapy; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)
IT Blood vessel, disease
Brain, disease
Cardiovascular system, disease
Inflammation
Kidney, disease
Liver, disease
Lung, disease
Mammary gland, disease
Nervous system, disease
Ovary, disease
Pancreas, disease
Prostate gland, disease
Skin, disease
Spleen, disease
Thymus gland, disease
Thyroid gland, disease
(diagnosis, therapy; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)
IT Bone formation
(disease associated with; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)
IT Platelet (blood)
(disease, diagnosis, therapy; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)
IT Hematopoietic precursor cell
Testis
(disease; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)
IT Immunity
Metabolism, animal

(disorder, diagnosis, therapy; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)

IT Angiogenesis
(disorder; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)

IT Blood vessel, disease
(endothelium; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)

IT Hematopoietic precursor cell
(erythroid, disorder; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)

IT Genetic methods
(gene discovery; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)

IT Cell proliferation
(inhibition; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)

IT Cell differentiation
(modulation; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)

IT Diagnosis
(mol.; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)

IT Transport proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(prostaglandin-transporting, sequence homologs; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins)

IT Muscle, disease
(skeletal; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)

IT Disease, animal
(therapy, diagnosis; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)

IT Animal
(transgenic; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)

IT Transport proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(transmembrane, sequence homologs, 593; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins)

IT Infection
(viral, diagnosis, therapy; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)

IT 673104-00-2 673104-03-5 673104-06-8 673104-09-1 673104-20-6

673104-22-8 673104-24-0 673104-26-2 673104-28-4 673104-30-8
673104-35-3 673104-36-4 673104-37-5 673104-40-0 673104-42-2
673104-48-8 673104-51-3 673104-52-4 673104-53-5 673104-57-9
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(amino acid sequence; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)

IT 9026-59-9, Guanylate kinase
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(membrane-associated, sequence homolog, 21910; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins)

IT 673103-99-6 673104-01-3 673104-02-4 673104-04-6 673104-05-7
673104-07-9 673104-08-0 673104-10-4 673104-11-5 673104-12-6
673104-13-7 673104-14-8 673104-15-9 673104-16-0 673104-17-1
673104-18-2 673104-19-3 673104-21-7 673104-23-9 673104-25-1
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673104-34-2 673104-38-6 673104-39-7 673104-41-1 673104-43-3
673104-44-4 673104-45-5 673104-46-6 673104-47-7 673104-49-9
673104-50-2 673104-54-6 673104-55-7 673104-56-8 673104-58-0
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(nucleotide sequence; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)

IT **104645-76-3**, **Phosphatidylinositol** 4-phosphate 5-**kinase**
RL: **ANT (Analyte)**; BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); **ANST (Analytical study)**; BIOL (Biological study); USES (Uses)
(sequence homolog, 56634; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins)

IT 9031-94-1, Aminopeptidase
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(sequence homologs, 17903; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins)

IT 9012-42-4, Adenylate cyclase
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(sequence homologs, 21529; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins)

IT 9059-25-0, Lysyl oxidase
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(sequence homologs, 21967; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins)

IT 9047-61-4, Transferase
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(sequence homologs, 25501; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins)

IT 78990-62-2, Calpain
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic

use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(sequence homologs, 26176; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins)

IT 9055-15-6, Oxidoreductase
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(sequence homologs, 26343; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins)

IT 82707-54-8, Neprilysin
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(sequence homologs, 56638; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins)

IT 372092-80-3, Protein kinase
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(sequence homologs; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins)

IT 673106-57-5 673106-58-6 673106-76-8 673106-77-9 673106-78-0
673106-82-6
RL: PRP (Properties)
(unclaimed nucleotide sequence; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)

IT 287108-13-8 673106-27-9 673106-28-0 673106-29-1 673106-30-4
673106-31-5 673106-32-6 673106-33-7 673106-34-8 673106-35-9
673106-36-0 673106-37-1 673106-38-2 673106-39-3 673106-40-6
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673106-75-7 673106-79-1 673106-80-4 673106-81-5 673106-83-7
RL: PRP (Properties)
(unclaimed protein sequence; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)

IT 673106-84-8 673106-85-9 673106-86-0 673106-87-1 673106-88-2
673106-89-3 673106-90-6 673106-91-7 673106-92-8
RL: PRP (Properties)
(unclaimed sequence; cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses)

L60 ANSWER 4 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2004:59653** HCAPLUS
DN 140:126701
ED Entered STN: 23 Jan 2004
TI Cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications
IN Zhu, Hua; Gingeras, Thomas R.; Shenk, Thomas
PA USA
SO U.S. Pat. Appl. Publ., 26 pp., Cont. of U.S. Ser. No. 377,907.
CODEN: USXXCO
DT **Patent**
LA English
IC ICM C12Q001-70
ICS C12Q001-68; C12P021-06
NCL 435005000; 435006000; 435069100
CC 14-3 (Mammalian Pathological Biochemistry)

Section cross-reference(s): 1, 10, 13

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	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004014027	A1	20040122	US 2001-950024	20010912 <--
PRAI	US 1999-377907	A1	19990820 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2004014027	ICM	C12Q001-70
	ICS	C12Q001-68; C12P021-06
	NCL	435005000; 435006000; 435069100
US 2004014027	ECLA	C12Q001/68M6 <--

AB Certain human genes have been found to be induced or repressed in host cells infected with HCMV. A large set of such genes has been identified. These have diagnostic use in determining the extent of tissue damage caused by the infection as well as in determining the stage of disease progression of the HCMV infection. Such genes are likely those involved in mediating the pathol. of the infected tissues. Thus by identifying agents which are able to reverse the induction or repression of such genes, one can find candidate therapeutic agents for use in treating and or preventing HCMV-caused disease pathologies. Specifically disclosed are 258 mRNAs (with GenBank Accession Number provided) identified from microarray of about 6600 mRNA isolated from primary human fibroblast infected with HCMV strain AD169, whose levels are changed by a factor of 4 or more (124 increased, 134 decreased) in response to HCMV infection (after infection but before the onset of viral DNA replication). Several of these mRNAs are claimed to encode gene products that might play key roles in virus-induced pathogenesis, which include HLA-E, Ro/SSA, lipocortin-1, cPLA2, COX-2 and thrombospondin-1.

ST human cytomegalovirus infection cellular gene transcription regulation pathogenesis; diagnosis drug screening HCMV infection cellular gene regulation

IT Bone morphogenetic proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(4, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(AF1q; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Lipoprotein receptors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(ARP-1 (apolipoprotein A-I regulatory protein), gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(BCL7B; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Transcription factors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(C/EBP-.beta. (CCAAT box/enhancer element-binding protein .beta.), gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(CDC25; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(COX-2, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(CYP2C; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(DNA-binding, AP-2, genes encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Apolipoproteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(E, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(GBP (guanylate-binding protein), gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(GTP-binding, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Molecular chaperones
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(GroES, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Histones
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(H2A, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Histocompatibility antigens
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(HLA-E, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(HOX7; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Annexins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(I, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Transcription factors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(ID2 (inhibitor of differentiation 2), gene encoding; cellular gene

expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(IRF-1; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Transcription factors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(IRF-2 (interferon regulatory factor 2), gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(IRP (iron regulatory protein), gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Transcription factors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(ISGF-2 (interferon-stimulated gene factor 2), gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(KIAA0107; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Lipoprotein receptors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(LDL, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(MAD-3; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(MxA, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Transcription factors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(NF-.kappa.B (nuclear factor of .kappa. light chain gene enhancer in B-cells), gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(PIM1; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT G proteins (guanine nucleotide-binding proteins)
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(RAB, 13, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening

applications)
IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(RB1; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)
IT Antigens
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(Ro/SSA, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)
IT Receptors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(SSR (signal sequence receptor), gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)
IT Transforming growth factor receptors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(TGF-.beta. receptor, type V, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)
IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(TNFAIP3 (tumor necrosis factor .alpha.-induced protein 3), gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)
IT Nuclear receptors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(TR3 (testicular receptor 3), gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)
IT Initiation factors (protein formation)
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(Tif (translation initiation factor), genes encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)
IT Ribonucleoproteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(U2 snRNP (U2 snRNA-containing small nuclear ribonucleoprotein), genes encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)
IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(XE169; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)
IT Epithelium
Fibroblast
Lymphocyte
(anal. of gene expression in; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)
IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(arginine-containing, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)
IT Antigens

RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(autoantigens, Sp100, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Antigens
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(cPLA2, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Antiviral agents
DNA sequences
Gene expression profiles, animal
Human
Human herpesvirus 5
Protein sequences
RNA sequences
cDNA sequences
(cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT mRNA
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT EST (expressed sequence tag)
cDNA
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Oligonucleotides
RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Proteoglycans, biological studies
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(chondroitin sulfate-containing, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Glycoproteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(dystrophin-associated, 35,000-mol.-weight, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding AML1e protein; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding CSaids binding protein; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding ERCC5 excision repair protein; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal

RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding HLA-DR associate protein 1; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding MITF; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding MN1 protein; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding TFPI-2; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding TIMP3; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding acid finger protein; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding blood-coagulation factor VII; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding corticotropin-releasing factor binding protein; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding decay-accelerating factor; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding extracellular protein Si-5; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding integral membrane protein E16; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding lipoprotein-associated coagulation inhibitor; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding lissencephaly protein LIS1; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding mitF; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding p53-binding protein; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding platelet-endothelial tetraspan antigen 3; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding polyA-binding protein; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding pre-B cell enhancing factor; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding protein 6-16; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding protein 9-27; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding protein MxB; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding protein PML-1; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening

applications)
IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding smooth muscle protein SM22; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)
IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding ubiquitin-like protein GdX; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)
IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(encoding .beta.-migrating plasminogen activator inhibitor 1; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)
IT Lung
(epithelium, anal. of gene expression in cells of; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)
IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(fibulin, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)
IT Computer application
(for gene expression profiling; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)
IT **DNA microarray technology**
Nucleic acid hybridization
(for mRNA anal.; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)
IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(gas-1; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)
IT Insulin-like growth factor receptors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(gene encoding TGF-.beta. type V receptor; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)
IT Activin receptors
Androgen receptors
Annexins
Aromatic hydrocarbon receptors
Cadherins
Calponin
Cyclins
Endoglins
Enkephalins
Ferritins
Filamin
G protein-coupled receptors
Glucocorticoid receptors
Insulin-like growth factor I receptors
Integrins
Interleukin 11
Interleukin 6
Interleukin 7
Myosins
RANTES (chemokine)
Thrombospondins

Thrombospondins
Tropomyosins
Troponins
Tumor necrosis factor receptors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Collagens, biological studies
Growth factor receptors
Heat-shock proteins
Insulin-like growth factor-binding proteins
Interferons
Laminins
Orphan receptors
Splicing factors
Transcription factors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(genes encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(ligand-binding, genes encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Fluorescent dyes
(microarray probe labeled with; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Diagnosis
(mol.; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Nerve
(neuron, anal. of gene expression in; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(nucleophosmin, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(nucleotide-binding, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(p27; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(pentraxins, II, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(staf50; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Enzymes, biological studies
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(ubiquitin-conjugating, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Computer program
(use in anal. of gene expression; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Infection
(viral; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Platelet-derived growth factor receptors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(.alpha., gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Actins
Tubulins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(.alpha.-, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Interferons
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(.beta., gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Tubulins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(.beta.-, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Transforming growth factor receptors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(.beta.-transforming growth factor, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT Actins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(.gamma.-, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT 39391-18-9
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(2, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT **80449-02-1**, Tyrosine kinase
RL: **ANT (Analyte)**; BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); **ANST (Analytical study)**; BIOL (Biological study); USES (Uses)
(Hyl, gene encoding; cellular gene expression monitoring for human cytomegalovirus (HCMV) infection for diagnostic and drug screening applications)

IT 150789-84-7, Protein (human clone 2.2 gene XPGC reduced) 150901-50-1, Protein (human gene ERF-1 reduced) 151186-62-8, .alpha.2-Chimaerin (human reduced) 154007-23-5, Endoglin (human precursor reduced) 161736-37-4 164639-44-5, Protein (human KG-1 cell 370-amino acid) 170976-14-4 183327-12-0 185438-73-7 189259-29-8 189399-60-8,

Protein FTP3 (human gene FTP3) 221224-22-2, Protein (human brain gene BCL7B) 244066-46-4 385849-08-1, Pro-galanin (humán) 385849-22-9, Protein (human KG-1 cell gene KIAA0062) 385849-42-3, Protein synthesis factor (human) 385849-64-9 385849-84-3 385849-92-3, RNA formation factor NF-IL6.beta. (human) 391961-38-9 391961-46-9, BRCA2 (human gene BRCA2) 391962-08-6 391962-92-8 391963-58-9, Immunophilin (human) 391963-63-6, Protein (human gene IL7R) 391963-81-8 391963-94-3 391964-22-0 391964-30-0, Protein (human gene IGFBP1) 391964-60-6, Receptor TR3 (human) 391964-80-0, Protein (human 214-amino acid) 391965-13-2 391965-31-4, Cyclin (human) 391966-11-3 391966-18-0, Protein (human 572-amino acid) 391966-36-2 391966-87-3, Protein (human 225-amino acid) 391967-00-3 391967-09-2 391967-45-6 391967-70-7 391967-78-5, Protein (human gene AF1q) 391967-90-1 391968-73-3, AH-receptor (human cell line HepG2) 391969-21-4 391969-76-9, Protein (human 255-amino acid) 391970-27-7 391970-90-4 391973-38-9, Protein (human 91-amino acid) 391973-49-2 391973-90-3, Protein (human gene cdc25B) 391974-07-5, Cadherin-11 (human) 391974-85-9 391975-07-8 391975-79-4 392341-55-8, Protein (human gene COL1A1) 431953-57-0 431953-68-3 443407-82-7 443408-60-4, Protein (human gene E16) 443408-71-7, Protein IFP53 (human HeLa cell) 444956-01-8, Thrombospondin 2 (human gene THBS2) 445046-96-8 445047-28-9 459497-82-6, RIP (human gene RIP) 459512-91-5, Protein (human 346-amino acid) 459513-19-0, Protein (human gene BCL2) 459514-06-8 459514-64-8, Protein (human 313-amino acid) 459517-04-5, Protein (human 437-amino acid) 459517-16-9 459519-31-4 459519-60-9, Fibulin-1 C (human) 459520-26-4, Laminin (human gene LAMB2 B2 chain) 459520-85-5, Nuclear autoantigen (human gene Sp-100) 459524-46-0, Iron regulatory factor (human) 459528-71-3, Protein (human gene AF-9) 459530-15-5, Thrombin inhibitor (human clone PTI/P) 459531-45-4 459531-47-6 459531-68-1 459531-92-1, Protein (human gene gas1) 459533-15-4 459533-30-3 459535-58-1 459536-88-0 459537-77-0, Integrin alpha 8 subunit (human) 459539-34-5 459539-99-2 459555-43-2 459584-93-1 459618-22-5, Protein (human 515-amino acid) 459627-89-5, T245 protein (human gene T245) 459727-30-1 459750-50-6 459752-02-4 459752-08-0 459752-18-2, Tropomyosin (human WI-38 cell isoform) 459752-32-0 462297-51-4 475132-53-7 475229-10-8 475229-13-1, Protein Id-2H (human TIG-3 cell) 475229-14-2 475229-28-8, Cytoskeletal .gamma.-actin (human) 475229-41-5, .alpha.-D-galactosidase A (human gene GLA) 475229-42-6 475229-43-7 475229-60-8, Pro-type III collagen .alpha. (human) 479329-31-2, CAS (human) 479329-87-8 479329-88-9 479331-34-5 479475-17-7, Neuronal pentraxin II (human gene NPTX2) 479475-21-3 479478-23-4 479478-56-3, Protein (human gene IGF1R) 479478-69-8, Glia maturation factor (human) 479797-64-3 479871-39-1, Protein (human gene COL1A2) 479954-16-0 480112-14-9 480123-35-1, Protein (human 255-amino acid) 480125-25-5, Protein (human 210-amino acid) 480125-33-5 480125-36-8 480126-20-3, Protein (human gene Weel Hu) 480127-34-2, Rab 13 (human gene rab 13) 480615-71-2 480624-85-9 480643-37-6, Protein (human 193-amino acid) 480643-64-9 480646-46-6 480652-60-6, Protein (human 469-amino acid) 480655-24-1, Glutathione peroxidase (human) 480659-31-2, Alpha-tubulin (human clone HALPHA44.) 480674-22-4 480681-25-2 480682-78-8 480682-79-9, HYL tyrosine kinase (human gene HHYLTK) 480682-86-8, Protein (human 130-amino acid) 480683-90-7 480684-20-6 480686-94-0 480688-59-3, Protein (human 364-amino acid) 480688-60-6, Protein (human 111-amino acid) 480690-85-5, Protein (human gene MN1) 480691-59-6 480693-92-3 480787-66-4 480907-25-3, Apolipoprotein E (human gene APOE) 480908-22-3 480915-26-2, Ubiquitin protease (human gene Unph) 480931-16-6, Histone H2A.2 (human cell line Hela) 480936-95-6, Molecular chaperone DnaJ (human) 480942-82-3, Gamma-sarcoglycan (human) 480944-70-5 481122-86-5, AML1c protein (human gene AML1) 481143-53-7 481148-37-2 481148-71-4 481149-74-0, Cysteine protease (human) 481169-74-8 481170-95-0 481171-26-0 481171-87-3, EIF-5A (human) 481177-02-0, Transketolase (human gene TKT) 481179-45-7 481195-82-8 481219-05-0 481220-75-1 481221-90-3 481222-24-6, .beta.-glucocorticoid receptor (human) 481223-37-4 481224-54-8 481228-88-0 481230-71-1, P53-binding protein (human clone 53BP1) 481236-40-2 481237-05-2, Protein (human 17-amino acid) 481238-35-1, Protein (human 175-amino acid) 481238-65-7 481239-29-6, Factor H ue (human) 481239-94-5 481239-97-8 481242-26-6 481242-61-9 481243-01-0 481243-03-2, Protein (human 688-amino acid) 481243-18-9, Interferon-induced protein (human p78) 481243-99-6, Protein (human 475-amino acid) 481244-49-9, Protein (human 508-amino acid) 481245-41-4 481245-53-8, Protein (human 284-amino acid) 481245-65-2, Protein (human 157-amino acid) 481245-73-2, H+ -ATPase C subunit (human gene vat C) 481278-78-8, Protein (human gene AR) 481279-80-5, Protein (human gene BMP2) 481279-99-6, Protein (human gene C1R) 481281-53-2,

GenBank AAA51983 481282-57-9, Protein (human gene COL5A2) 481286-64-0
481286-65-1 481286-95-7 481288-87-3, Homeobox protein (human gene
HOX7) 481298-23-1 481298-89-9 481301-69-3, Protein (human gene IL6)
481302-78-7 481306-71-2, Protein (human gene PAI1) 481307-55-5, PML-1
protein (human gene PML) 481310-50-3 481319-39-5 481321-23-7
481442-14-2 483112-66-9 483141-94-2 483516-88-7, ATFx (mouse)
483609-27-4 486081-26-9 487630-65-9 648632-49-9 648632-50-2
648632-51-3
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
(Biological study)
(amino acid sequence; cellular gene expression monitoring for human
cytomegalovirus (HCMV) infection for diagnostic and drug screening
applications)

IT 9000-83-3, Atpase 9001-12-1, Collagenase 9001-40-5,
Glucose-6-phosphate dehydrogenase 9001-58-5, Isocitrate dehydrogenase
9001-84-7, Phospholipase a2 9014-51-1, Indoleamine 2,3-dioxygenase
9015-81-0 9023-44-3, Tryptophanyl-tRNA synthetase 9026-30-6,
Oligoadenylate synthetase 9028-86-8, Aldehyde dehydrogenase 9029-17-8,
Pyrroline 5-carboxylate reductase 9029-80-5, Histamine
N-methyltransferase 9030-21-1, Purine nucleoside phosphorylase
9031-71-4, Alanyl tRNA synthetase 9031-72-5, Alcohol dehydrogenase
9031-94-1, Aminopeptidase 9035-51-2, Cytochrome P 450, biological
studies 9059-25-0, Lysyl oxidase 11096-26-7, Erythropoietin
37289-19-3, GTP cyclohydrolase I 65802-86-0, Prostacyclin synthase
79747-53-8, Protein tyrosine phosphatase 80295-65-4, Complement
factor H 81181-72-8, .gamma.-Glutamyl carboxylase 98037-52-6, Abl
protein (tyrosine) kinase 117628-82-7, Follistatin 140699-00-9,
Pro-galanin 140879-24-9, Proteasome 141436-78-4, Protein kinase c
154835-90-2, Adrenomedullin 176591-29-0, Rip protein kinase
RL: **ANT (Analyte)**; BSU (Biological study, unclassified); DGN
(Diagnostic use); THU (Therapeutic use); **ANST (Analytical study)**
; BIOL (Biological study); USES (Uses)
(gene encoding; cellular gene expression monitoring for human
cytomegalovirus (HCMV) infection for diagnostic and drug screening
applications)

IT 134687-60-8 139134-80-8 139805-88-2, DNA (human follistatin gene)
139806-08-9 139842-17-4, GenBank X02157 139867-29-1 140025-77-0
140029-44-3, DNA (human gene G6PD) 140029-45-4 140063-64-5, DNA (human
gene TFPI) 140064-90-0 140065-45-8 140079-06-7 140082-99-1
140090-60-4 140276-04-6, GenBank M34570 140284-31-7 140286-50-6
140288-21-7, GenBank J03589 140321-60-4 140327-61-3, GenBank X54163
140333-49-9 140508-18-5 140578-91-2 140600-80-2 140743-93-7
140750-96-5 140958-12-9, GenBank J02933 140999-50-4 141166-40-7
142101-51-7, GenBank M86521 142481-67-2 144014-55-1, DNA (human gene
HOX7 protein cDNA plus flanks) 145885-47-8 145886-09-5 148108-30-9
148141-55-3 148450-42-4 149278-23-9 149768-71-8 150003-43-3
151119-50-5, DNA (human .alpha.2-chimaerin cDNA plus flanks) 151350-69-5
152080-84-7, DNA (human gene CYP2C) 153965-34-5 154332-74-8
154898-87-0 155150-75-7 155483-52-6 158280-04-7 159069-09-7
160864-91-5 162159-36-6 162388-41-2 162800-24-0 162840-92-8
162861-63-4 162903-33-5 162945-31-5 162947-74-2 162981-50-2
162986-73-4 163023-95-8 163024-07-5 163031-62-7 163180-27-6
163375-32-4 163411-20-9 163416-75-9 163638-41-3 163793-10-0
163906-39-6 163938-74-7 163953-68-2 164142-32-9 164370-84-7
164418-61-5 164807-82-3 164833-75-4 164883-28-7 164883-57-2
165001-16-1 165339-18-4 165339-25-3 165340-73-8 165431-95-8
165478-56-8 165565-61-7 165577-85-5 165625-82-1 165633-84-1
165635-13-2 165635-22-3 165699-74-1 165852-97-1 165857-26-1
165863-96-7 165914-32-9 165919-24-4 165979-05-5 165983-28-8
165984-95-2 165989-39-9 166087-81-6 166204-99-5 166226-94-4
166562-35-2 166573-43-9 166576-84-7 166615-10-7 166705-03-9
166717-03-9 166841-36-7, DNA (human gene NPTX2) 166858-38-4
167042-44-6 167118-83-4 167182-63-0 167199-31-7 167246-53-9
167458-57-3 167814-43-9 168852-09-3 168938-91-8 168994-96-5
169077-06-9 169583-51-1 169640-50-0 169644-30-8 170203-40-4
170416-47-4 170524-97-7 170549-83-4 170825-51-1 171145-07-6
171152-15-1 175641-47-1, DNA (mouse strain SV129 cDNA) 176347-37-8,
DNA (human gene TKT cDNA) 176459-48-6 177309-68-1 179501-25-8
187764-90-5 188421-03-6, DNA (human gene STE cDNA) 189056-34-6
196384-36-8, DNA (human gene IMPA exon 9 plus flanks) 199317-68-5
199496-62-3 203239-06-9 205968-76-9, DNA (mouse ATFx cDNA)
382730-24-7 382776-69-4 384417-10-1 384423-54-5 384425-63-2, DNA
(human gene IGFBP5 cDNA) 384427-22-9 384432-21-7, DNA (human
lipocortin cDNA plus flanks) 384439-03-6, DNA (human gene BMP2)
384439-32-1 384444-31-9, DNA (human gene PML cDNA) 384451-13-2
384451-57-4, DNA (human gene LAMB2 exon 28) 384452-01-1, DNA (human

cDNA) 384453-84-3 384463-38-1, DNA (human gene BCL2 cDNA)
384463-79-0 384465-75-2 384466-28-8 384479-92-9, DNA (human cell
line ags) 384492-73-3 384492-86-8 384492-98-2 384493-19-0, DNA
(human clone pXPC-3 gene XPCC cDNA) 384504-87-4, DNA (human cell line
U937 cDNA) 384528-22-7, DNA (human gene AF-9 cDNA) 384545-38-4
384556-99-4 384557-77-1 384560-16-1 384562-17-8, DNA (mouse strain
LAF1 gene mSara cDNA) 384562-75-8, DNA (human cadherin-11 cDNA)
384563-72-8 384567-37-7 384574-79-2 384592-80-7 384593-87-7, DNA
(human cell line KG-1 cDNA) 384609-28-3 384750-18-9, DNA (human gene
hTcf-4 cDNA) 384976-77-6 384976-79-8, DNA (human clone pAH12 cDNA)
384983-79-3 385028-04-6 385091-23-6, DNA (human gene Unph cDNA)
385093-53-8 385097-61-0 385102-89-6 385176-74-9 389179-95-7, DNA
(human gene COL5A2) 389181-95-7, DNA (human gene C1R cDNA) 389182-64-3
389185-14-2, DNA (human 130-amino acid protein cDNA) 389185-20-0
389185-66-4 389187-39-7, GenBank X13482 389189-65-5 389190-72-1, DNA
(human cyclin cDNA) 389196-47-8 389200-16-2, GenBank X02875
389200-61-7, DNA (human receptor TR3 cDNA) 389215-58-1, DNA (human gene
CSBP1 cDNA) 389222-78-0 389241-75-2 389261-40-9 389313-62-6
389482-92-2, DNA (human clone GS1-345D13) 391523-94-7 391524-81-5,
GenBank X05231 391525-02-3 391525-17-0, DNA (human lamin C cDNA plus
flanks) 391526-37-7, GenBank M36711 391526-56-0, DNA (human cDNA)
391526-60-6 391526-73-1 391526-82-2, DNA (human cell line FS-2 cDNA)
391527-05-2 391527-11-0 391527-20-1 391527-26-7 391527-43-8, DNA
(human p78 protein cDNA plus flanks) 391527-45-0 391527-54-1, GenBank
J02814 391527-62-1 391528-19-1, DNA (human gene HBGF-R cDNA)
391528-31-7, DNA (human fibulin-1 C cDNA) 391528-33-9 391528-46-4
391528-57-7 391528-63-5 391528-87-3, DNA (human cell line HeLa IFP53
cDNA) 391529-07-0, DNA (human gene ACTG1)
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
(Biological study)
(nucleotide sequence; cellular gene expression monitoring for human
cytomegalovirus (HCMV) infection for diagnostic and drug screening
applications)

IT 391529-31-0, GenBank M10119 391529-65-0, DNA (human gene IL6 cDNA)
391530-84-0, DNA (human iron regulatory factor) 391532-22-2
391532-23-3, DNA (human gene APOE gene plus flanks) 391532-25-5, DNA
(human gene COL1A2 cDNA) 391532-49-3, GenBank M27903 391533-33-8, DNA
(human gene IGFBP3) 391533-54-3 391534-46-6 391534-75-1
391534-76-2 391534-96-6 391535-32-3 391535-50-5, DNA (human protein
E16 cDNA plus flanks) 391535-52-7 391536-65-5, DNA (human immunophilin
cDNA) 391537-22-7 391537-40-9 391541-74-5, DNA (human WI38 cell gene
LOX exon 7) 391541-96-1 391542-17-9 391542-43-1 391542-59-9
391543-61-6, DNA (human gene LIS1 cDNA) 391544-00-6 391544-05-1
391545-15-6 391546-82-0 391547-50-5 391548-26-8 391548-81-5
391549-96-5 391550-27-9 391550-54-2, DNA (human cell line KG-1 cDNA)
391550-75-7 391550-95-1 391552-32-2 391553-27-8 391554-24-8
391556-93-7 391558-53-5 391558-83-1 391559-96-9 391560-53-5
391561-40-3 391561-45-8 391562-67-7 391563-27-2 391564-58-2
391565-08-5 391566-06-6 391567-03-6 391570-82-4 391573-68-5
391576-82-2 391579-39-8 391583-29-2 391584-70-6 391587-25-0
391588-40-2 391590-98-0, DNA (human CAS cDNA) 391591-08-5, DNA (human
gene AML1 cDNA) 391767-78-5 391768-82-4 391768-98-2 391772-59-1
391772-92-2, DNA (human gene MLCK cDNA) 391784-09-1 391787-70-5, DNA
(human protein XMP cDNA plus flanks) 391816-52-7 391833-38-8, DNA
(human glia maturation factor cDNA) 392193-26-9 392193-44-1
392193-70-3 392202-63-0 392204-58-9 392204-88-5 392209-70-0
392213-15-9, DNA (human gene IGF1R cDNA) 398109-87-0 398113-32-1, DNA
(human gene RIP cDNA) 398424-96-9 398425-34-8, DNA (human gene vat C
cDNA) 398425-79-1, GenBank M15841 648883-51-6, GenBank AP017732
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
(Biological study)
(nucleotide sequence; cellular gene expression monitoring for human
cytomegalovirus (HCMV) infection for diagnostic and drug screening
applications)

IT 9014-08-8, Enolase
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic
use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological
study); USES (Uses)
(.gamma.-2, gene encoding; cellular gene expression monitoring for
human cytomegalovirus (HCMV) infection for diagnostic and drug
screening applications)

L60 ANSWER 5 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2003:1013104** HCAPLUS
DN 140:73597
ED Entered STN: 31 Dec 2003

TI Compositions and methods for monitoring the phosphorylation of natural binding partners
IN Craig, Roger K.; Colyer, John
PA Cyclacel, Ltd., UK
SO U.S., 47 pp., Cont.-in-part of U.S. Ser. No. 258,981.
CODEN: USXXAM
DT **Patent**
LA English
IC ICM G01N033-53
ICS G01N033-542; C12Q001-42; C12N009-00; C12N009-96
NCL 435021000; 435007800; 435007900; 435007910; 435183000; 435188000; 435188500; 435194000
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 1, 7
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6670144	B1	20031230	US 2000-511204	20000223 <--
	US 2002090643	A1	20020711	US 1999-258981	19990226 <--
	US 6656696	B2	20031202		
	US 2003203407	A1	20031030	US 2003-382017	20030305 <--
PRAI	US 1999-258981	A2	19990226 <--		
	US 2000-511204	A3	20000223 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6670144	ICM	G01N033-53
	ICS	G01N033-542; C12Q001-42; C12N009-00; C12N009-96
	NCL	435021000; 435007800; 435007900; 435007910; 435183000; 435188000; 435188500; 435194000

AB This invention relates to methods and compns. for monitoring the interaction of binding partners as a function of the addition or subtraction of a phosphate group to or from one of the binding partners by a protein kinase or phosphatase.

ST compn monitoring phosphorylation natural binding partner
IT Enzymes, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Modulator; compns. and methods for monitoring the phosphorylation of natural binding partners)
IT Phosphorylation, biological
(Post-translational; compns. and methods for monitoring the phosphorylation of natural binding partners)
IT Binders
Composition
Dephosphorylation, biological
Dissociation
Drug screening
Energy transfer
Fluorescence resonance energy transfer
Labels
Light
Phosphate group
Phosphorylation, biological
Reaction
(compns. and methods for monitoring the phosphorylation of natural binding partners)
IT Peptides, analysis
Proteins
RL: ANT (Analyte); ANST (Analytical study)
(compns. and methods for monitoring the phosphorylation of natural binding partners)
IT Enzymes, biological studies
RL: BSU (Biological study, unclassified); CAT (Catalyst use); BIOL (Biological study); USES (Uses)
(compns. and methods for monitoring the phosphorylation of natural binding partners)
IT Light
(fluorescent; compns. and methods for monitoring the phosphorylation of natural binding partners)
IT **79747-53-8**, Tyrosine phosphatase
RL: **ANT (Analyte); ANST (Analytical study)**
(Yersinia; compns. and methods for monitoring the phosphorylation of natural binding partners)
IT 154907-65-0, Chk1 protein kinase
RL: ANT (Analyte); ANST (Analytical study)
(compns. and methods for monitoring the phosphorylation of natural

binding partners)
IT 9031-44-1, Kinase 372092-80-3, Protein kinase 375798-61-1, Phosphoprotein phosphatase
RL: BSU (Biological study, unclassified); CAT (Catalyst use); BIOL (Biological study); USES (Uses)
(compns. and methods for monitoring the phosphorylation of natural binding partners)
IT 639551-91-0 639551-92-1 639551-94-3 639551-95-4
RL: PRP (Properties)
(unclaimed nucleotide sequence; compns. and methods for monitoring the phosphorylation of natural binding partners)
IT 146064-85-9 152646-20-3 253279-61-7 289652-77-3 289884-40-8 289884-58-8 639470-77-2 639551-89-6 639551-90-9 639551-93-2
RL: PRP (Properties)
(unclaimed protein sequence; compns. and methods for monitoring the phosphorylation of natural binding partners)
RE.CNT 87 THERE ARE 87 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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(2) Anon; WO 9200388 1992 HCAPLUS
(3) Anon; WO 9640116 1996 HCAPLUS
(4) Anon; EP 9728261 1997
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L60 ANSWER 6 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2003:961123** HCAPLUS
DN 140:26563
ED Entered STN: 10 Dec 2003
TI Human brain phospholipase C and use thereof as diagnostic marker for neurological conditions
IN Kask, Kalev; Melcher, Thorsten; Chin, Daniel J.
PA AGY Therapeutics, Inc., USA
SO U.S., 47 pp.
CODEN: USXXAM
DT **Patent**
LA English
IC ICM C12Q001-00
ICS G01N033-53; G01N033-573
NCL 435007100; 435004000
CC 14-10 (Mammalian Pathological Biochemistry)
Section cross-reference(s): 3, 7, 15
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6660483	B1	20031209	US 2000-688078	20001013 <--
PRAI	US 1999-159622P	P	19991014 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6660483	ICM	C12Q001-00
	ICS	G01N033-53; G01N033-573
	NCL	435007100; 435004000

AB The invention relates to a human phospholipase C expressed in the brain (B-PLC) and induced in response to ischemic brain tissue. The invention provides protein and cDNA sequences for human brain phospholipase C (GenBank accession number AB029015). The B-PLC polypeptide could be used as marker for the diagnosis of neurol. diseases using immunoassay. The inventions provides methods and reagents useful for diagnosis and treatment of hypoxic-ischemic brain insult such as stroke.
ST cDNA sequence brain phospholipase C human; neurol disease diagnosis immunoassay human brain phospholipase C
IT Rattus
(B-PLC mRNA expression detection in the brain of; human brain phospholipase C and use thereof as diagnostic marker for neurol. conditions)
IT Brain
(PLC specific to; human brain phospholipase C and use thereof as

diagnostic marker for neurol. conditions)

IT Gene, animal
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(for brain phospholipase C, of human; human brain phospholipase C and use thereof as diagnostic marker for neurol. conditions)

IT cDNA sequences
(for human brain phospholipase C; human brain phospholipase C and use thereof as diagnostic marker for neurol. conditions)

IT Blood
Blood analysis
Human
Immunoassay
Molecular cloning
(human brain phospholipase C and use thereof as diagnostic marker for neurol. conditions)

IT Hypoxia, animal
(hypoxic-ischemic brain insult; human brain phospholipase C and use thereof as diagnostic marker for neurol. conditions)

IT Brain, disease
(ischemia; human brain phospholipase C and use thereof as diagnostic marker for neurol. conditions)

IT Diagnosis
(mol.; human brain phospholipase C and use thereof as diagnostic marker for neurol. conditions)

IT Inflammation
(neurogenic; human brain phospholipase C and use thereof as diagnostic marker for neurol. conditions)

IT Protein sequences
(of human brain phospholipase C; human brain phospholipase C and use thereof as diagnostic marker for neurol. conditions)

IT Brain, disease
(stroke; human brain phospholipase C and use thereof as diagnostic marker for neurol. conditions)

IT Antibodies and Immunoglobulins
RL: **ARG (Analytical reagent use)**; DGN (Diagnostic use); **ANST (Analytical study)**; BIOL (Biological study); USES (Uses)
(to human B-PLC; human brain **phospholipase C** and use thereof as diagnostic marker for neurol. conditions)

IT 244205-26-3 632384-99-7
RL: **ANT (Analyte)**; BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); **ANST (Analytical study)**; BIOL (Biological study); USES (Uses)
(amino acid sequence; human brain **phospholipase C** and use thereof as diagnostic marker for neurol. conditions)

IT 164488-64-6, GenBank T78839 188158-77-2, GenBank AA277075 201183-27-9, GenBank AA690679 203220-34-2, GenBank AA772973 231268-71-6, GenBank AB029015 252146-76-2, GenBank AL024179 255746-60-2, GenBank AW408450 256112-69-3, GenBank AW428387 257063-83-5, GenBank AW466123 257188-10-6, GenBank AW478640 257382-98-2, GenBank AW493796 257970-85-7, GenBank AW500653 288498-97-5, GenBank BE655266 384751-46-6, GenBank U73122
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(human brain phospholipase C and use thereof as diagnostic marker for neurol. conditions)

IT **9001-86-9, Phospholipase C**
RL: **ANT (Analyte)**; BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); **ANST (Analytical study)**; BIOL (Biological study); USES (Uses)
(isoenzyme B-PLC, of human; human brain **phospholipase C** and use thereof as diagnostic marker for neurol. conditions)

IT 632384-98-6
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(nucleotide sequence; human brain phospholipase C and use thereof as diagnostic marker for neurol. conditions)

IT 632394-56-0, 1: PN: US6660483 SEQID: 1 unclaimed DNA 632394-58-2, 3: PN: US6660483 SEQID: 3 unclaimed DNA 632394-60-6, 5: PN: US6660483 SEQID: 5 unclaimed DNA 632394-61-7, 8: PN: US6660483 SEQID: 8 unclaimed DNA 632394-63-9 632394-64-0 632394-65-1 632394-66-2 632394-67-3 632394-68-4 632394-69-5 632394-70-8 632394-71-9 632394-72-0 632394-73-1 632394-74-2 632394-75-3
RL: PRP (Properties)
(unclaimed nucleotide sequence; human brain phospholipase C and use thereof as diagnostic marker for neurol. conditions)

IT 632394-57-1 632394-59-3 632394-62-8
RL: PRP (Properties)
(unclaimed protein sequence; human brain phospholipase C and use thereof as diagnostic marker for neurol. conditions)
RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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L60 ANSWER 7 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2003:811862** HCAPLUS
DN 139:288644
ED Entered STN: 16 Oct 2003
TI Methods and compositions for preserving glucose level in blood specimens
IN Landt, Michael
PA Washington University, USA
SO U.S., 14 pp.
CODEN: USXXAM
DT **Patent**
LA English
IC ICM A61K031-11
NCL 514693000; 435002000
CC 9-16 (Biochemical Methods)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6632844	B1	20031014	US 2001-816493	20010323 <--
PRAI US 2000-192971P	P	20000329 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6632844	ICM	A61K031-11
	NCL	514693000; 435002000

AB The invention relates to methods and compns. for preserving blood samples. In particular, a method for stabilizing glucose level in a blood sample is provided, which method comprises adding an effective amount of glyceraldehyde to a blood sample, whereby glucose level in said blood sample remains substantially constant for a period of time. Kits and combinations for stabilizing glucose level in a blood sample are also provided.
ST compn preserving glucose blood specimen
IT Analytical apparatus
(Automated; methods and compns. for preserving glucose level in blood specimens)
IT Mixtures
(Racemic; methods and compns. for preserving glucose level in blood specimens)
IT Molecules
(anti-glycolytic; methods and compns. for preserving glucose level in blood specimens)
IT Drugs
Preservatives
(blood preservatives; methods and compns. for preserving glucose level in blood specimens)

IT Blood analysis
(glucose; methods and compns. for preserving glucose level in blood specimens)
IT Blood analysis
Blood plasma
Blood preservation
Blood serum
Composition
Concentration (condition)
Diagnosis
Glycolysis
Ions
Metabolism, animal
Stability
Test kits
Time
(methods and compns. for preserving glucose level in blood specimens)
IT Albumins, analysis
Proteins
RL: ANT (Analyte); ANST (Analytical study)
(methods and compns. for preserving glucose level in blood specimens)
IT 50-99-7, D-Glucose, analysis 57-13-6, Urea, analysis 60-27-5, Creatinine 124-38-9, Carbon dioxide, analysis 635-65-4, Bilirubin, analysis 7440-09-7, Potassium, analysis 7440-23-5, Sodium, analysis 7440-70-2, Calcium, analysis 9000-97-9, Aspartate aminotransferase **9001-78-9**, Alkaline phosphatase 16887-00-6, Chloride, analysis
RL: **ANT (Analyte); ANST (Analytical study)**
(methods and compns. for preserving glucose level in blood specimens)
IT 56-82-6, D,L-Glyceraldehyde 78-98-8, Methylglyoxal 87-79-6, L-Sorbose 96-26-4, Dihydroxyacetone 141-46-8, Glycolaldehyde 453-17-8, D-Glyceraldehyde 473-81-4, Glyceric Acid 497-09-6, L-Glyceraldehyde 9005-49-6, Heparin, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(methods and compns. for preserving glucose level in blood specimens)
RE.CNT 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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(2) Anon; EP 0367271 1990
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L60 ANSWER 8 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2003:777228** HCAPLUS
DN 139:288165
ED Entered STN: 03 Oct 2003
TI Fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent fluorescence resonant energy transfer
IN Tsien, Roger Y.; Ting, Alice Y.; Zhang, Jin
PA USA
SO U.S. Pat. Appl. Publ., 47 pp., Cont.-in-part of U.S. Ser. No. 396,003, abandoned.
CODEN: USXXCO
DT **Patent**
LA English
IC ICM C12Q001-68
ICS G01N033-543; C12N009-12
NCL 435006000; 435007920; 435194000
CC 7-1 (Enzymes)
Section cross-reference(s): 9
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 2003186229	A1	20031002	US 2001-865291	20010524	<--
	US 6803188	B1	20041012	US 1996-594575	19960131	<--
	US 5981200	A	19991109	US 1997-792553	19970131	<--
	WO 2002095058	A2	20021128	WO 2002-US16955	20020524	
	WO 2002095058	C2	20031113			
	WO 2002095058	A3	20040708			
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
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	US 1999-396003	B2	19990913	<--		
	US 2001-865291	A	20010524			
	WO 2002-US16955	W	20020524			

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
US 2003186229	ICM	C12Q001-68	
	ICS	G01N033-543; C12N009-12	
	NCL	435006000; 435007920; 435194000	
US 2003186229	ECLA	C07K014/435A5; C12Q001/37	<--
US 6803188	ECLA	C07K014/435A5; C12Q001/37	<--
US 5981200	ECLA	C07K014/435A5; C12Q001/37	<--

AB Fluorogenic peptide assay substrates for protein kinases are described. The peptides are derived from the phosphorylation site of kinase substrate and are flanked by fluorescence donor and acceptor groups. The donor and acceptor moieties exhibit fluorescence resonance energy transfer (FRET) that is eliminated upon phosphorylation. The fluorogenic groups may be added to the peptide chemical or the cleavage peptide may be part of a larger protein that exhibits natural fluorescence resonance energy transfer, e.g. a derivative of green fluorescent protein. A pair of peptides exhibiting FRET

could be used to assay many phosphorylation or dephosphorylation reactions if the substrate peptide can be incorporated into the protein. A fusion protein of an enhanced cyan fluorescent protein and the citrine variant of yellow fluorescent protein connected by a linker that included the protein kinase A phosphorylation site of 14-3-3 protein was prepared by expression of the gene in Escherichia coli. The fusion protein showed an emission peak at 526 nm from the citrine moiety. Upon phosphorylation by protein kinase A emission at 476 nm increased. When cleaved by trypsin, the green emission disappears almost completely and fluorescence of the blue protein climbs.

ST fluorescent resonance energy transfer protein kinase assay; FRET green fluorescent protein protein kinase phosphatase assay

IT Proteins
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(14-3-3, fusion proteins, phosphopeptide binding by; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT Protein motifs
(SH2 domain, fusion proteins containing, phosphopeptide binding by; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT Proteins
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(SHC, fusion proteins, phosphopeptide binding by; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT Resonance energy transfer
(bioluminescence; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT Proteins
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(cyan fluorescent, fusion proteins, homologs, derivs., as proteinase assay substrates; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT Cytoplasm
(cytosol, detection of protein kinases or phosphatases in; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT Endoplasmic reticulum
(detection of protein kinases or phosphatases in; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT Fluorescence resonance energy transfer
Fluorometry
(fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT Fusion proteins (chimeric proteins)
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(fluorogenic, as proteinase assay substrates; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT Peptides, properties
RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)
(fluorogenic; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT Chimeric gene
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(for green fluorescent protein fusion products; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT **Test kits**
(for phosphorylation assays; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT Proteins
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(green fluorescent, fusion proteins, homologs, derivs., as proteinase assay substrates; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT Chloroplast

Endosome
Lysosome
(lumen, detection of protein kinases or phosphatases in; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT Mitochondria
(matrix, detection of protein kinases or phosphatases in; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT Protein sequences
(of green fluorescent protein analogs of Aequorea victoria; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT Proteins
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(red fluorescent, fusion proteins, homologs, derivs., as proteinase assay substrates; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT Organelle
(trans-Golgi network, detection of protein kinases or phosphatases in; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT Proteins
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(yellow fluorescent, fusion proteins, homologs, derivs., as proteinase assay substrates; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT 477305-92-3D, substitution analogs, derivs., fusion proteins
477305-95-6D, substitution analogs, derivs., fusion proteins 477305-98-9D, substitution analogs, derivs., fusion proteins 477306-00-6D, substitution analogs, derivs., fusion proteins 477306-02-8D, substitution analogs, derivs., fusion proteins 477306-05-1D, substitution analogs, derivs., fusion proteins 477306-07-3D, substitution analogs, derivs., fusion proteins
RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)
(amino acid sequence, kinase assay substrates containing; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT 607410-30-0D, substitution analogs, derivs., fusion proteins
607410-31-1D, substitution analogs, derivs., fusion proteins
607410-32-2D, substitution analogs, derivs., fusion proteins
607410-33-3D, Red fluorescent protein (Discosoma), substitution analogs, derivs., fusion proteins
RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)
(amino acid sequence; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT 22541-20-4D, Terbium3+, chelates, biological studies 126735-38-4
RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(as luminescent reporters; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT 142008-29-5, Protein kinase A
RL: ANT (Analyte); ANST (Analytical study)
(assay for; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT 19840-99-4, Carbostyril 124
RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(in luminescent reporters; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT 375798-61-1, Phosphoprotein phosphatase
RL: ANT (Analyte); ANST (Analytical study)
(phosphoprotein phosphatase, assay for; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT 372092-80-3, Protein kinase
RL: ANT (Analyte); ANST (Analytical study)
(protein kinase, assay for; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)

IT **80449-02-1**, Protein tyrosine kinase
RL: **ANT (Analyte)**; **ANST (Analytical study)**
(protein tyrosine kinase, assay for; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent FRET)
IT 607447-26-7 607447-27-8 607447-29-0 607447-30-3 607447-31-4
607447-32-5 607447-34-7 607447-35-8 607447-36-9 607447-37-0
607447-38-1 607447-39-2 607447-43-8 607447-44-9 607447-45-0
607447-46-1
RL: PRP (Properties)
(unclaimed nucleotide sequence; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent fluorescence resonant energy transfer)
IT 607447-28-9 607447-33-6 607447-40-5 607447-41-6 607447-42-7
607447-47-2
RL: PRP (Properties)
(unclaimed protein sequence; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent fluorescence resonant energy transfer)
IT 65189-71-1 153177-60-7 477305-85-4 477305-87-6 477305-89-8
477305-90-1 477306-11-9
RL: PRP (Properties)
(unclaimed sequence; fluorogenic assay substrates for protein kinases that exhibit phosphorylation-dependent fluorescence resonant energy transfer)

L60 ANSWER 9 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2003:757220** HCAPLUS
DN 139:272070
ED Entered STN: 26 Sep 2003
TI Novel cDNAs encoding human protein kinase, phosphatase, and protease family members and their diagnostic and therapeutic uses
IN Meyers, Rachel E.; Olandt, Peter J.; Kapeller-Libermann, Rosana; Curtis, Rory A. J.; Williamson, Mark; Weich, Nadine
PA USA
SO U.S. Pat. Appl. Publ., 520 pp., Cont.-in-part of U.S. Ser. No. 45,367.
CODEN: USXXCO
DT **Patent**
LA English
IC ICM C12N009-12
ICS C07H021-04; C12P021-02; C12N005-06
NCL 435194000; 435069100; 435325000; 435320100; 536023200
CC 3-3 (Biochemical Genetics)
Section cross-reference(s): 1, 7, 9, 13
FAN.CNT 57

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     US 2001-934406       A2    20010821
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     US 2001-961721       A2    20010924
     WO 2001-US29904      A     20010924
     US 2001-45367        A2    20011107
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CLASS
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 US 2003180930    ICM    C12N009-12
                  ICS    C07H021-04; C12P021-02; C12N005-06
                  NCL    435194000; 435069100; 435325000; 435320100; 536023200
 US 2003180930    ECLA   C07K016/40; C12N009/12B; C12N009/12B1B; C12N009/12B1;
                         C12N009/16; C12N009/64F2C21M21; C12N009/64F2C21;    <--
 US 2002042099    ECLA   C07K016/40; C12N009/12B1                             <--
 US 2002022249    ECLA   C12N009/16                                          <--
 US 2002165152    ECLA   C12N009/64F2C21                                     <--
AB   The invention provides eleven isolated nucleic acids mols., designated
     2504, 15977, 14760, 53070, 15985, 50365, 26583, 21953, m32404, 14089, and
     23436 nucleic acid mols., which encode novel human protein kinase family
     members, serine/threonine protein kinase family members, hexokinase family
     members, serine/threonine phosphatase family members, prolyl
     oligopeptidase family members, trypsin family members, trypsin serine
     protease family members, and ubiquitin protease family members.  The
     invention also provides antisense nucleic acid mols., recombinant
     expression vectors containing 2504, 15977, 14760, 53070, 15985, 50365, 26583,
     21953, m32404, 14089, or 23436 nucleic acid mols., host cells into which
     the expression vectors have been introduced, and nonhuman transgenic
     animals in which a 2504, 15977, 14760, 53070, 15985, 50365, 26583, 21953,
     m32404, 14089, or 23436 gene has been introduced or disrupted.  The
     invention still further provides isolated 2504, 15977, 14760, 53070,
     15985, 50365, 26583, 21953, m32404, 14089, or 23436 proteins, fusion
     proteins, antigenic peptides and anti-2504, 15977, 14760, 53070, 15985,
     50365, 26583, 21953, m32404, 14089, or 23436 antibodies.  Diagnostic
     methods utilizing compns. of the invention are also provided.
ST   enzyme family homolog cDNA sequence human; protein kinase family homolog
     cDNA sequence human; phosphatase family homolog cDNA sequence human;
     proteinase family homolog cDNA sequence human
IT   Animal cell line
        (COS, recombinant expression host; novel cDNAs encoding human protein
        kinase, phosphatase, and protease family members and their diagnostic
        and therapeutic uses)
IT   Test kits
        (diagnostic; novel cDNAs encoding human protein kinase, phosphatase,
        and protease family members and their diagnostic and therapeutic uses)
IT   Animal tissue
        (expression profiles; novel cDNAs encoding human protein kinase,
        phosphatase, and protease family members and their diagnostic and
        therapeutic uses)
IT   Diagnosis
        (mol.; novel cDNAs encoding human protein kinase, phosphatase, and
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protease family members and their diagnostic and therapeutic uses)

IT Disease, animal
Drug screening
Human
Immunoassay
Molecular cloning
Nucleic acid hybridization
Protein sequences
cDNA sequences
(novel cDNAs encoding human protein kinase, phosphatase, and protease family members and their diagnostic and therapeutic uses)

IT Antibodies and Immunoglobulins
Fusion proteins (chimeric proteins)
RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(novel cDNAs encoding human protein kinase, phosphatase, and protease family members and their diagnostic and therapeutic uses)

IT Escherichia coli
Eubacteria
(recombinant expression host; novel cDNAs encoding human protein kinase, phosphatase, and protease family members and their diagnostic and therapeutic uses)

IT 363625-96-1 604034-18-6
RL: PRP (Properties)
(Unclaimed; novel cDNAs encoding human protein kinase, phosphatase, and protease family members and their diagnostic and therapeutic uses)

IT 604033-55-8, Protein (human clone 2504) 604033-58-1, Protein (human clone 15977) 604033-61-6, Protein (human clone 14760) 604033-64-9, Protein (human clone 53070) 604033-67-2, Protein (human clone 15985) 604033-70-7, Protein (human clone 50365) 604033-73-0, Protein (human clone 26583) 604033-76-3, Protein (human clone 21953) 604033-79-6, Protein (human clone m32404) 604033-82-1, Protein (human clone 14089) 604033-85-4, Protein (human clone 23436)
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(amino acid sequence; novel cDNAs encoding human protein kinase, phosphatase, and protease family members and their diagnostic and therapeutic uses)

IT **9001-51-8**, Hexokinase 9001-92-7, Proteinase 9002-07-7, Trypsin 9013-05-2, Phosphatase **9025-75-6**, Serine/threonine protein phosphatase **9026-43-1**, Serine/threonine protein kinase 37259-58-8, Serine protease 72162-84-6, Prolyl oligopeptidase 109136-49-4, Ubiquitin proteinase 372092-80-3, Protein kinase
RL: **ANT (Analyte)**; BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); **ANST (Analytical study)**; BIOL (Biological study); USES (Uses)
(family homologs; novel cDNAs encoding human protein kinase, phosphatase, and protease family members and their diagnostic and therapeutic uses)

IT 604033-54-7 604033-56-9, DNA (human clone 2504 protein cDNA)
604033-57-0 604033-59-2, DNA (human clone 15977 protein cDNA)
604033-60-5 604033-62-7, DNA (human clone 14760 protein cDNA)
604033-63-8 604033-65-0, DNA (human clone 53070 protein cDNA)
604033-66-1 604033-68-3, DNA (human clone 15985 protein cDNA)
604033-69-4 604033-71-8, DNA (human clone 50365 protein cDNA)
604033-72-9 604033-74-1, DNA (human clone 26583 protein cDNA)
604033-75-2 604033-77-4, DNA (human clone 21953 protein cDNA)
604033-78-5 604033-80-9, DNA (human clone m32404 protein cDNA)
604033-81-0 604033-83-2, DNA (human clone 14089 protein cDNA)
604033-84-3 604033-86-5, DNA (human clone 23436 protein cDNA)
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(nucleotide sequence; novel cDNAs encoding human protein kinase, phosphatase, and protease family members and their diagnostic and therapeutic uses)

IT 604033-97-8 604033-98-9 604033-99-0 604034-00-6 604034-01-7
604034-02-8 604034-03-9 604034-04-0 604034-05-1 604034-06-2
604034-07-3 604034-08-4 604034-09-5 604034-10-8 604034-11-9
604034-12-0 604034-13-1 604034-14-2 604034-15-3 604034-16-4
604034-17-5 604034-19-7
RL: PRP (Properties)
(unclaimed protein sequence; novel cDNAs encoding human protein kinase, phosphatase, and protease family members and their diagnostic and therapeutic uses)

IT 84192-85-8 306763-13-3 330583-05-6
RL: PRP (Properties)
(unclaimed sequence; novel cDNAs encoding human protein kinase, phosphatase, and protease family members and their diagnostic and therapeutic uses)

L60 ANSWER 10 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2003:737283** HCAPLUS
DN 139:257275
ED Entered STN: 19 Sep 2003
TI Cloning of cDNAs for sphingosine-1-phosphate lyases and sphingosine kinases from human and Drosophila, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy
IN Saba, Julie D.; Fyrst, Henrik
PA Children's Hospital Oakland Research Institute, USA
SO U.S. Pat. Appl. Publ., 49 pp., Cont.-in-part of U.S.Ser. No.356,643.
CODEN: USXXCO
DT **Patent**
LA English
IC ICM C12N009-88
ICS C12Q001-34; C07H021-04; C12P021-02; C12N005-06
NCL 435232000; 435018000; 435325000; 435320100; 435069100; 536023200
CC 7-2 (Enzymes)
Section cross-reference(s): 1, 3, 12, 13
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 2003175939	A1	20030918	US 2002-53510	20020117	<--
	US 6423527	B1	20020723	US 1997-939309	19970929	<--
	US 6569666	B1	20030527	US 1999-356643	19990719	<--
	US 2003059922	A1	20030327	US 2002-286175	20021030	<--
	WO 2003062390	A2	20030731	WO 2003-US1739	20030117	
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
	US 2004126834	A1	20040701	US 2003-622011	20030716	
PRAI	US 1997-939309	A2	19970929	<--		
	US 1999-356643	A2	19990719	<--		
	US 2001-849180	A1	20010504			
	US 2002-349582P	P	20020117			
	US 2002-53510	A	20020117			
	US 2003-348052	A2	20030117			

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
US 2003175939	ICM	C12N009-88	
	ICS	C12Q001-34; C07H021-04; C12P021-02; C12N005-06	
	NCL	435232000; 435018000; 435325000; 435320100; 435069100; 536023200	
US 2003175939	ECLA	C12N009/88	<--
US 6423527	ECLA	C12N009/88	<--
US 6569666	ECLA	C12N009/88	<--
US 2003059922	ECLA	C12N009/88	<--

AB Compns., methods and kits for diagnosing and treating cancer are provided. Therapeutic compns. may comprise agents that modulate the expression or activity of a sphingosine-1-phosphate lyase (SPL). Such compns. may be administered to a mammal afflicted with cancer. Diagnostic methods and kits may employ an agent suitable for detecting alterations in endogenous SPL. Such methods and kits may be used to detect the presence of a cancer or to evaluate the prognosis of a known disease. SPL polypeptides, polynucleotides and antibodies are also provided. In particular, disclosed are the cDNA and protein sequences of sphingosine-1-phosphate lyase (SPL) from human and Drosophila in addition to Saccharomyces cerevisiae and C. elegans and mouse (previously known), and sphingosine kinases (SK) from human and Drosophila. The SPL gene is further characterized by generating Drosophila P-element insertional null mutant (flightless). Characterization of sphingolipid species in this fly mutant shows it fails to catabolize endogenous LCBPs (phosphorylated long chain bases, C14/16) and contains only sphingolipid species which comigrated with C14

sphingosine and C14 sphingosine-1-phosphate (S-1-P) stds. under the stated conditions. In addition, it demonstrates abnormal flight muscle morphol., which can be restored by SPL reversion and suppressed by reducing sphingolipid intermediates. Furthermore, human SPL and SK expression patterns in cancer are examined by cancer profiling array, which shows the expression of both genes is altered in human tumors and indicates both of them can serves as useful markers for cancer diagnosis and drug screening. Methods of screening for pharmacol. suppressors of SPL or SK mutants using transgenic flies expressing recombinant human SPL or SK are disclosed.

ST human Drosophila sphingosine 1 phosphate lyase cDNA sequence; sphingosine kinase cDNA sequence human Drosophila; sphingolipid metab SPL SK modulation cancer diagnosis therapy

IT Transposons
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(P element; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Estrogen receptors
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(SPL or SK related drugs targeted to; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Oligonucleotides
RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(SPL or SK specific; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Development, nonmammalian postembryonic
(T2 segment, of thoracic muscles; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(antitumor; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Diagnosis
(cancer; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Intestine, neoplasm
(colon, reduced expression of SPL in; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Mammalia
Mammary gland, neoplasm
(diagnosis of; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Embryo, animal
(embryogenesis; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Amides, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(fatty, substitution of, sphingolipid intermediate containing; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Phenotypes
(flightless, of Drosophila SPL knockout; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT cDNA sequences
(for SPL or SK, of human and D. melanogaster; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Gene, animal

RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(for SPL or SK, of human and D. melanogaster; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Gene targeting
(gene knock-out; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Antitumor agents
Drosophila melanogaster
Drug screening
Human
Metabolism, animal
Molecular cloning
Signal transduction, biological
(human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Probes (nucleic acid)
RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Mutation
(insertion, P-element, for gene knockout; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Sphingolipids
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(metabolic intermediates of, phosphorylated; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Diagnosis
(mol.; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Protein sequences
(of SPL or SK, of human and D. melanogaster; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Intestine, neoplasm
(rectum, adenocarcinoma, reduced expression of SPL in; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Sphingolipids
(sphingolipidosis; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Methyl group
(substitution of, sphingolipid intermediate containing; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Muscle
(thoracic, Drosophila abnormal patterns; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(to SPL or SK; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT 78531-45-0D, 1-aryl derivs.
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(SPL modulation by; human and Drosophila sphingosine-1-phosphate lyase

and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT 601602-43-1P 601602-45-3P, Lyase, sphinganine 1-phosphate (human)
RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino acid sequence; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT 26993-30-6, Sphingosine 1-phosphate
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT 228694-43-7, GenBank AF144638
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT 62213-50-7, Serine palmitoyltransferase
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(modulation of; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT 601602-42-0 601602-44-2
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(nucleotide sequence; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT 222535-47-9, GenBank AF144638
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(nucleotide sequence; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT 39391-27-0P, Lyase, sphinganine 1-phosphate **50864-48-7P**, Kinase (phosphorylating), dihydrosphingosine
RL: **ANT (Analyte)**; BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); **ANST (Analytical study)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(of human and D. melanogaster; human and Drosophila sphingosine-1-phosphate lyase and/or sphingosine kinase, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT 601604-09-5 601604-11-9 601604-13-1 601604-15-3 601604-18-6
601604-19-7 601604-20-0 601604-21-1
RL: PRP (Properties)
(unclaimed nucleotide sequence; cloning of cDNAs for sphingosine-1-phosphate lyases and sphingosine kinases from human and Drosophila, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

IT 601604-10-8 601604-12-0 601604-14-2 601604-16-4 601604-17-5
601604-22-2 601604-23-3 601604-24-4 601604-25-5
RL: PRP (Properties)
(unclaimed protein sequence; cloning of cDNAs for sphingosine-1-phosphate lyases and sphingosine kinases from human and Drosophila, and their use for modulation of sphingolipid metabolism and/or signaling in cancer diagnosis and therapy)

L60 ANSWER 11 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2003:730498** HCAPLUS
DN 139:257705
ED Entered STN: 17 Sep 2003
TI Use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening
IN Zyskind, Judith W.
PA Elitra Pharmaceuticals, Inc., USA
SO U.S., 52 pp.
CODEN: USXXAM
DT **Patent**

LA English
IC ICM C12Q001-68
ICS C07H021-04
NCL 435006000; 435252300; 435252340; 435375000; 536024500
CC 9-2 (Biochemical Methods)
Section cross-reference(s): 1, 3, 7, 10
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6620585	B1	20030916	US 2000-630929	20000802 <--
PRAI US 2000-630929		20000802 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6620585	ICM	C12Q001-68
	ICS	C07H021-04
	NCL	435006000; 435252300; 435252340; 435375000; 536024500

AB The present invention relates to methods of measuring microbial proliferation using ectoenzymes such as membrane-bound chitobiase (N,N'-diacetylchitobiase), and antisense nucleic acids for use in such methods. The methods of measuring microbial proliferation can be used for screening a test compound for the ability to inhibit microbial proliferation. Exemplary construction of chitobiase integration plasmid, integration of the membrane-bound chitobiase gene into Escherichia coli chromosome, assays for chitobiase and other enzymes, cell-based assay to determine the effect of antisense expression on cell sensitivity, construction of secretion vectors, use of single-copy chitobiase gene system to follow cell growth, real-time detection of cell growth, and identification of the biol. pathway in which a proliferation-required gene lies are described.

ST proliferation microbe ectoenzyme secreted enzyme chitobiase detn drug screening; microbial proliferation ectoenzyme antisense nucleic acid drug screening

IT Proteins
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(A; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT Proteins
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(Sir, streptococcal; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT Enzymes, **analysis**
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(autolytic, of Staphylococcus aureus; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor **microbial** proliferation and **applications** to drug screening)

IT Membrane, biological
(bilayer, membrane-bound chitobiase; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT Transformation, genetic
(detection of, using chitobiase; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT **High throughput screening**
(drug; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT Enzymes, **analysis**
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(ectoenzymes; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor **microbial** proliferation and **applications** to drug screening)

IT Toxins
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(enterotoxins; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT Receptors
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(ferric pyoverdin, FpyA, of Pseudomonas aeruginosa; use of ectoenzymes,

secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT **Drug screening**
(high throughput; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT Promoter (genetic element)
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(inducible, antisense nucleic acids transcription from; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT Proteins
RNA
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(proliferation--required, antisense nucleic acids to gene for; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT Gene, microbial
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(proliferation--required, antisense nucleic acids to; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT Metabolic pathways
(proliferation-related; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT Enzymes, **analysis**
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(secreted; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor **microbial** proliferation and **applications** to drug screening)

IT Proteins
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(starch utilization, SusG, of Bacteroides thetaiotaomicron; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT Combinatorial library
(test compound from; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT Natural products
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(test compound; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT Antibiotics
Antimicrobial agents
Aspergillus fumigatus
Bacillus anthracis
Bacteroides thetaiotaomicron
Campylobacter jejuni
Candida albicans
Chlamydia pneumoniae
Chlamydia trachomatis
Clostridium botulinum
Cryptococcus neoformans
Drug screening
Enterobacter cloacae
Enterococcus faecalis
Escherichia coli
Genetic engineering
Genetic vectors
Growth, microbial
Haemophilus influenzae
Helicobacter pylori
High throughput screening
Klebsiella pneumoniae
Lactococcus lactis
Microorganism
Moraxella catarrhalis

Mycobacterium leprae
Mycobacterium tuberculosis
Neisseria gonorrhoeae
Pseudomonas aeruginosa
Salmonella choleraesuis
Salmonella paratyphi
Salmonella typhi
Salmonella typhimurium
Staphylococcus aureus
Staphylococcus epidermidis
Streptococcus mutans
Streptococcus pneumoniae
Streptococcus sobrinus
Streptococcus suis
Treponema pallidum
Yersinia pestis
(use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT Hemolysins
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT Antisense RNA
Antisense nucleic acids
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT 9016-18-6, Esterase
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(Staphylococcal; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT 367-93-1, IPTG
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(bacterial proliferation after induction with; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT 37259-58-8
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(gene prtP; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT 9001-92-7, Endopeptidase
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(gene scpA and ompP; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT 137-16-6, Sarkosyl
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(in chitobiase assay; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT 9012-33-3, Chitobiase
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(membrane-bound, of Streptococcus pneumoniae; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT 9013-05-2, Phosphomonoesterase
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(of Haemophilus influenza; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT 109136-65-4, Gene NisP proteinase
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(of Lactococcus lactis; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)

IT 9073-60-3, .beta.-Lactamase
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(of Moraxella catarrhalis; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)
IT 81669-70-7, Metalloproteinase
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(of Pseudomonas aeruginosa; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)
IT 9039-49-0, Murein hydrolase 195159-62-7, Fatty acid modifying enzyme
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(of Staphylococcus aureus; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)
IT 9033-47-0, Fructosidase
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(of Streptococcus mutans; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)
IT 9001-67-6, Neuraminidase
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(of Streptococcus pneumoniae; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)
IT 9025-70-1, Dextranase
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(of Streptococcus sobrinus; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)
IT 9001-63-2, Muramidase
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(of Streptococcus suis; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)
IT 9001-62-1, Lipase
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(staphylococcal; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)
IT 9031-96-3, Peptidase
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(streptococcal C5a; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)
IT 600434-22-8, 4: PN: US6620585 SEQID: 2 unclaimed DNA 600434-24-0, 6: PN: US6620585 SEQID: 4 unclaimed DNA 600434-25-1 600434-26-2
RL: PRP (Properties)
(unclaimed nucleotide sequence; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)
IT 600434-21-7 600434-23-9
RL: PRP (Properties)
(unclaimed protein sequence; use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)
IT 9001-06-3, Chitinase 9001-13-2, Coagulase 9001-84-7, Phospholipase A **9003-98-9**, DNase 9011-93-2, Lysostaphin **9013-53-0**, Staphylococcus aureus Nuclease 9040-61-3, Staphylokinase 37278-88-9, Endo-.beta.-N-acetylglucosaminidase 37353-41-6, Sulfhydryl protease 163913-65-3, Gene prtH proteinase 395639-61-9, Gene prtB proteinase
RL: **ANT (Analyte)**; BUU (Biological use, unclassified); **ANST (Analytical study)**; BIOL (Biological study); USES (Uses)
(use of ectoenzymes, secreted enzymes and antisense nucleic acids to monitor microbial proliferation and applications to drug screening)
RE.CNT 85 THERE ARE 85 CITED REFERENCES AVAILABLE FOR THIS RECORD
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L60 ANSWER 12 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2003:312636** HCAPLUS
DN 138:283684
ED Entered STN: 24 Apr 2003
TI Method and device for detecting analytes in fluids
IN Carpenter, Charles R.
PA IDEXX Laboratories, Inc., USA
SO U.S., 53 pp., Cont.-in-part of U.S. Ser. No. 439,024.
CODEN: USXXAM
DT **Patent**
LA English
IC ICM G01N033-533
NCL 436518000; 435007100; 435007900; 435287100; 435287200; 435287700; 435286500; 435810000; 435910000; 436528000
CC 9-1 (Biochemical Methods)
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6551842	B1	20030422	US 2000-525151	20000314 <--
	US 6602719	B1	20030805	US 1999-277715	19990326 <--
	US 6511814	B1	20030128	US 1999-439024	19991112 <--
	CA 2332240	AA	20001005	CA 2000-2332240	20000324 <--
	BR 2000006058	A	20010320	BR 2000-6058	20000324 <--
	JP 2002540427	T2	20021126	JP 2000-608177	20000324 <--
	AU 773121	B2	20040520	AU 2000-40299	20000324 <--
PRAI	US 1999-277715	A2	19990326 <--		
	US 1999-439024	A2	19991112 <--		
	US 2000-525151	A	20000314 <--		
	WO 2000-US7965	W	20000324 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6551842	ICM	G01N033-533
	NCL	436518000; 435007100; 435007900; 435287100; 435287200; 435287700; 435286500; 435810000; 435910000; 436528000

AB A disposable, dry chemical anal. system is disclosed which is broadly useful for the detection of a variety of analytes present in biol. fluids such as whole blood, serum, plasma, urine and cerebral spinal fluid. The invention discloses the use of the reaction interface that forms between two liqs. converging from opposite directions within a bibulous material. The discovery comprises a significant improvement over prior art disposable, anal. reagent systems in that the detectable reactant zone is visually distinct and sep. from the unreacted reagents allowing for the use of reaction indicators exhibiting only minor changes as well as extremely high concns. of reactants. In addition, staged, multiple reagents can be incorporated. Whole blood can be used as a sample without the need for sep. cell separating materials. Finally, the invention is useful for the detection of analytes in a broad variety of materials such as milk, environmental samples, and other samples containing target analytes.

ST device detecting analyte fluid
IT Computer program
(INSPECTOR; method and device for detecting analytes in fluids)
IT Named reagents and solutions
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(Tinder's reagent; method and device for detecting analytes in fluids)
IT Blood analysis
Blood plasma
Blood serum
Body fluid
Calibration
Cell
Cerebrospinal fluid

Erythrocyte
Milk analysis
Urine analysis
(method and device for detecting analytes in fluids)

IT Albumins, analysis
Glycerides, analysis
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(method and device for detecting analytes in fluids)

IT Glass fibers, uses
RL: DEV (Device component use); USES (Uses)
(method and device for detecting analytes in fluids)

IT **Test kits**
(test strips; method and device for detecting analytes in fluids)

IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(total; method and device for detecting analytes in fluids)

IT 7727-37-9, Nitrogen, analysis
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(blood urea; method and device for detecting analytes in fluids)

IT 50-99-7, Glucose, analysis
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(determination in whole blood; method and device for detecting analytes in fluids)

IT 56-84-8, L-Aspartic acid, analysis 57-88-5, Cholesterol, analysis 60-27-5, Creatinine 69-93-2, Uric acid, analysis 635-65-4, Bilirubin, analysis 7439-95-4, Magnesium, analysis 7440-70-2, Calcium, analysis 7664-41-7, Ammonia, analysis 9000-86-6, Alanine aminotransferase 9000-92-4, Amylase 9001-15-4, Creatine kinase 9001-60-9, Lactate dehydrogenase 9001-62-1, Lipase **9001-78-9**, Alkaline phosphatase 9046-27-9, .gamma.-Glutamyl transferase
RL: **ANT (Analyte)**; BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(method and device for detecting analytes in fluids)

IT 1668-00-4, Arsenazo III
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(method and device for detecting analytes in fluids)

IT 298220-02-7, Hemasep L
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(method and device for detecting analytes in fluids)

IT 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9003-53-6, Polystyrene 9004-70-0, Nitrocellulose 25667-42-9, Polyethersulfone
RL: ARU (Analytical role, unclassified); DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); ANST (Analytical study); PROC (Process); USES (Uses)
(method and device for detecting analytes in fluids)

IT 138636-78-9, SUPOR
RL: DEV (Device component use); USES (Uses)
(method and device for detecting analytes in fluids)

RE.CNT 99 THERE ARE 99 CITED REFERENCES AVAILABLE FOR THIS RECORD
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L60 ANSWER 13 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2003:236459** HCAPLUS
DN 138:234421
ED Entered STN: 27 Mar 2003
TI Method and apparatus for producing and measuring light and for determining the amounts of analytes in microplate wells
IN Duebendorfer, Juerg; Jones, Donald; Neumann, Kenneth; Wang, Chang Jin
PA Packard Instrument Company, USA
SO U.S., 11 pp.
CODEN: USXXAM
DT **Patent**
LA English
IC ICM G01J003-30
NCL 356318000; 356317000
CC 9-1 (Biochemical Methods)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6538735	B1	20030325	US 2000-512707	20000225 <--
PRAI	US 2000-512707		20000225 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6538735	ICM	G01J003-30
	NCL	356318000; 356317000

AB An apparatus for measuring light in samples using a high intensity light source, is presented. The system uses bifurcated fiber bundles to transmit light at the excitation and emission wavelength bands. It also uses a band-pass filter for eliminating extraneous light, including that which corresponds to the excitation wavelength range, while permitting the emitted light to pass to a detector for quantitation. The system employs a shutter to shield the detector while the laser light source is activated, and a controller to intermittently activate the laser light and close the shutter. The apparatus preferably includes lenses for better illumination and read out conditions. The apparatus is employed in Luminescence Oxygen Channeling Immunoassays. The method has high sensitivity, accuracy and precision, and the apparatus is highly compact. Accordingly, the analyzer can perform assays in nanoliter to microliter sample vols. in standard microplates having at least 96, 384 or 1536 wells.
ST analyte detn microplate well light measurement system
IT Fluorescence
Lab-on-a-chip
Luminescence, bioluminescence
Luminescence, chemiluminescence
Microarray technology
Microtiter plates
Optical instruments
Photodiodes
(analyte determination in **microplate** well by optical system)
IT Optical fibers
(bifurcated; analyte determination in microplate well by optical system)
IT Light sources
(high intensity; analyte determination in microplate well by optical system)
IT Samples
(liquid; analyte determination in microplate well by optical system)
IT **Immunoassay**
(luminescence oxygen channeling; analyte determination in microplate well by optical system)
IT Tumor necrosis factors
RL: ANT (Analyte); ANST (Analytical study)
(receptor binding assays; analyte determination in microplate well by optical system)
IT Flash lamps
(xenon; analyte determination in microplate well by optical system)
IT 7782-44-7, Oxygen, analysis 21820-51-9, Phosphotyrosine
80449-02-1
RL: **ANT (Analyte)**; ANST (Analytical study)
(analyte determination in microplate well by optical system)
IT 7440-21-3, Silicon, uses
RL: DEV (Device component use); USES (Uses)
(photodiode; analyte determination in microplate well by optical system)
RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
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(14) Nielsen; US 5557415 A 1996 HCAPLUS
(15) Sandison; US 5920399 A 1999
(16) Zarling; US 5736410 A 1998 HCAPLUS

L60 ANSWER 14 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2003:154917** HCAPLUS
DN 138:203695
ED Entered STN: 28 Feb 2003
TI Retroviral nucleotide sequences associated with multiple sclerosis or rheumatoid arthritis and a probes and primers for their detection
IN Perron, Herve; Beseme, Frederic; Bedin, Frederic; Paranhos-Baccala, Glaucia; Komurian-Pradel, Florence; Jolivet-Reynaud, Colette; Mandrand, Bernard; Garson, Jeremy Alexander; Tuke, Philip William
PA Fr.
SO U.S. Pat. Appl. Publ., 193 pp., Cont.-in-part of U.S. Ser. No. 756,429, abandoned.
CODEN: USXXCO
DT **Patent**
LA English
IC ICM C12N009-24
ICS A61K039-12
NCL 424204100
CC 15-5 (Immunochemistry)
Section cross-reference(s): 3, 9, 10, 63
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003039664	A1	20030227	US 1997-979847	19971126 <--
	US 6582703	B2	20030624		
	US 2003198647	A1	20031023	US 2002-114104	20020403 <--
PRAI	US 1996-756429	B2	19961126 <--		
	US 1997-979847	A3	19971126 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2003039664	ICM	C12N009-24
	ICS	A61K039-12
	NCL	424204100
US 2003039664	ECLA	C07K014/15; C12N009/12B7B; C12Q001/70B2 <--
US 2003198647	ECLA	C07K014/15; C12N009/12B7B; C12Q001/70B2 <--

AB The invention provides viral material and nucleotide fragments associated with multiple sclerosis and/or rheumatoid arthritis for use in methods of diagnosis, prophylaxis, and therapy. Clones defining a retrovirus designated multiple sclerosis-related virus (MSRV-1) and a coinfective agent MSRV2 were obtained by nested PCR amplification in cell lines LM7PC and PLI-2 derived from human choroid plexus cells, and in cultures from patients infected with multiple sclerosis and rheumatoid arthritis. Sequences are provided for pol, env, and partial gag gene regions of MSRV-1 encoding products exhibiting reverse transcriptase, RNase H, and proteolytic activities, that are closely similar to, but different from the endogenous human retrovirus designated ERV-9 or HSERV-9. IgM and IgG antibodies against a MSRV-1 POL peptide enables the course of an MSRV-1 infection and/or of the viral reactivation of MSRV-1 to be evaluated. It is thus possible to carry out a diagnosis of MSRV-1 infection and/or reaction and evaluation of therapy in multiple sclerosis on the basis of its efficacy in "negativing" the detection of these agents in patients' biol. fluids.
ST multiple sclerosis rheumatoid arthritis assocd retrovirus; MSRV sequence multiple sclerosis diagnosis treatment; pol gene protein sequence MSRV multiple sclerosis; gag gene protein sequence MSRV multiple sclerosis; env gene protein sequence MSRV multiple sclerosis
IT Antibodies and Immunoglobulins
RL: ANT (Analyte); DGN (Diagnostic use); ANST (Analytical study); BIOL

(Biological study); USES (Uses)
(IgG; retroviral nucleotide sequences associated with multiple sclerosis or rheumatoid arthritis and a probes and primers for their detection)

IT Antibodies and Immunoglobulins
RL: ANT (Analyte); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(IgM; retroviral nucleotide sequences associated with multiple sclerosis or rheumatoid arthritis and a probes and primers for their detection)

IT Animal cell line
(LM7PC; retroviral nucleotide sequences associated with multiple sclerosis or rheumatoid arthritis and a probes and primers for their detection)

IT Animal cell line
(PLI-2; retroviral nucleotide sequences associated with multiple sclerosis or rheumatoid arthritis and a probes and primers for their detection)

IT Multiple sclerosis
Rheumatoid arthritis
(diagnosis and therapy of; retroviral nucleotide sequences associated with multiple sclerosis or rheumatoid arthritis and a probes and primers for their detection)

IT Nucleic acid amplification (method)
Nucleic acid hybridization
(diagnostic assay; retroviral nucleotide sequences associated with multiple sclerosis or rheumatoid arthritis and a probes and primers for their detection)

IT Gene, microbial
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(env; retroviral nucleotide sequences associated with multiple sclerosis or rheumatoid arthritis and a probes and primers for their detection)

IT Gene, microbial
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(gag; retroviral nucleotide sequences associated with multiple sclerosis or rheumatoid arthritis and a probes and primers for their detection)

IT Gene, microbial
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(pol; retroviral nucleotide sequences associated with multiple sclerosis or rheumatoid arthritis and a probes and primers for their detection)

IT B cell (lymphocyte)
Diagnosis
Human
Immunoassay
Multiple sclerosis-associated retrovirus
Multiple sclerosis-associated retrovirus 1
Multiple sclerosis-associated retrovirus 2
(retroviral nucleotide sequences associated with multiple sclerosis or rheumatoid arthritis and a probes and primers for their detection)

IT Antibodies and Immunoglobulins
Primers (nucleic acid)
Probes (nucleic acid)
RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(retroviral nucleotide sequences associated with multiple sclerosis or rheumatoid arthritis and a probes and primers for their detection)

IT 499983-47-0 499983-48-1 499983-49-2 499983-50-5 499983-51-6
499983-52-7 499983-53-8 499983-54-9 499983-55-0 499983-56-1
499983-57-2 499983-58-3 499983-59-4 499983-60-7
RL: ANT (Analyte); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(antigenic peptide; retroviral nucleotide sequences associated with multiple sclerosis or rheumatoid arthritis and a probes and primers for their detection)

IT 500041-36-1
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(antigenic pol2B peptide; retroviral nucleotide sequences associated with multiple sclerosis or rheumatoid arthritis and a probes and primers for their detection)

IT 500041-26-9 500041-27-0 500041-28-1 500041-29-2 500041-30-5
500041-31-6 500041-32-7 500041-33-8 500041-34-9 500041-35-0

500041-38-3 500041-39-4 500041-40-7 500041-41-8 500041-42-9
500041-43-0 500041-44-1 500041-45-2 500041-46-3 500041-47-4
500041-48-5 500041-49-6 500041-50-9 500041-51-0 500041-52-1
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(nucleotide sequence; retroviral nucleotide sequences associated with multiple sclerosis or rheumatoid arthritis and a probes and primers for their detection)

IT 500041-37-2
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(nucleotide sequence; retroviral nucleotide sequences associated with multiple sclerosis or rheumatoid arthritis and a probes and primers for their detection)

IT 500041-53-2 500041-54-3
RL: ARG (Analytical reagent use); DGN (Diagnostic use); PRP (Properties); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(primer for amplification; retroviral nucleotide sequences associated with multiple sclerosis or rheumatoid arthritis and a probes and primers for their detection)

IT **9050-76-4**, RNase H 9068-38-6, Reverse transcriptase
144114-21-6, Retroproteinase
RL: **ANT (Analyte)**; BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(retroviral nucleotide sequences associated with multiple sclerosis or rheumatoid arthritis and a probes and primers for their detection)

IT 500041-76-9 500041-77-0 500041-78-1 500041-79-2 500041-80-5
500041-81-6 500041-82-7 500041-83-8 500041-84-9 500041-85-0
500041-86-1 500041-87-2 500041-88-3 500041-89-4 500041-90-7
500041-91-8 500041-92-9 500041-93-0 500041-94-1 500041-95-2
500041-96-3 500041-97-4 500041-98-5 500041-99-6 500042-00-2
500042-01-3 500042-02-4 500042-03-5 500042-04-6 500042-05-7
500042-06-8 500042-07-9 500042-08-0 500042-09-1 500042-10-4
500042-11-5 500042-12-6 500042-13-7 500042-14-8 500042-15-9
500042-16-0 500042-17-1 500042-18-2 500042-19-3 500042-20-6
500042-21-7 500042-22-8 500042-23-9 500042-24-0 500042-25-1
500042-26-2 500042-27-3 500042-29-5 500042-31-9 500042-32-0
500042-33-1 500042-34-2 500042-35-3 500042-36-4 500042-37-5
500042-38-6 500042-39-7 500042-40-0 500042-41-1 500042-42-2
500042-43-3 500042-44-4 500042-45-5 500042-46-6 500042-47-7
500042-48-8
RL: PRP (Properties)
(unclaimed nucleotide sequence; retroviral nucleotide sequences associated with multiple sclerosis or rheumatoid arthritis and a probes and primers for their detection)

IT 500042-28-4 500042-30-8
RL: PRP (Properties)
(unclaimed protein sequence; retroviral nucleotide sequences associated with multiple sclerosis or rheumatoid arthritis and a probes and primers for their detection)

IT 499983-19-6 499983-20-9 499983-21-0 499983-22-1 499983-23-2
499983-24-3 499983-25-4 499983-26-5 499983-27-6 499983-28-7
499983-29-8 499983-30-1 499983-31-2 499983-32-3 499983-33-4
499983-34-5 499983-35-6 499983-36-7 499983-37-8 499983-38-9
499983-39-0 499983-40-3 499983-41-4 499983-42-5 499983-43-6
499983-44-7 499983-45-8 499983-46-9 499983-61-8 499983-62-9
499983-63-0 499983-64-1
RL: PRP (Properties)
(unclaimed sequence; retroviral nucleotide sequences associated with multiple sclerosis or rheumatoid arthritis and a probes and primers for their detection)

L60 ANSWER 15 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2003:118483** HCAPLUS
DN 138:149584
ED Entered STN: 14 Feb 2003
TI Measuring enzyme activity using peelable and resealable devices comprising immobilized substrates
IN Duffy, David; Kirk, Gregory L.; Campbell, Stewart; Schueller, Olivier; Agosto, Melina
PA Surface Logix, Inc., USA
SO U.S. Pat. Appl. Publ., 103 pp., Cont.-in-part of U. S. Ser. No. 709,776.
CODEN: USXXCO

DT **Patent**
LA English
IC G01N033-53; G01N033-537; G01N033-543; C12Q001-37
NCL 435007920; 435023000
CC 7-1 (Enzymes)
FAN.CNT 22

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003032076	A1	20030213	US 2002-206534	20020729 <--
	US 6803205	B2	20041012		
	US 6699665	B1	20040302	US 2000-709776	20001108 <--
	WO 2002048676	A2	20020620	WO 2001-US50909	20011107 <--
	WO 2002048676	C2	20030724		
	WO 2002048676	A3	20020829		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI	US 2000-709776	A2	20001108	<--
	US 2001-307839P	P	20010727	
	US 2001-323743P	P	20010921	
	WO 2001-US50909	A	20011107	
	US 2002-357649P	P	20020220	
	US 2002-366260P	P	20020322	
	US 2002-375024P	P	20020425	
	US 2002-380314P	P	20020515	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2003032076	IC	G01N033-53IC G01N033-537IC G01N033-543IC C12Q001-37
	NCL	435007920; 435023000

AB Devices and methods for performing assays on materials, particularly biol. materials, are provided. The devices and methods make use of self-sealing members, which can be applied to a flat surface to form wells to facilitate immobilization of materials on the flat surface, then removed to yield a flat surface that facilitates the performance of processes on and/or detection of the immobilized material. Thus, based plates comprising glass slides coated with a thin (45 nm) layer of gold were coated with a mixed self-assembled monolayer containing 2% maleimide-terminal groups in a background of tri(ethylene glycol) terminal groups. These surfaces were then exposed to a 500-.mu.M solution of a peptide (CEQEDEPEGIYGVLF) that is a good substrate for Lck kinase. The peptide reacted with the maleimide groups on the surface via its terminal cysteine groups to yield a surface composed of 2% of a monolayer of peptide.

ST enzyme assay immobilized substrate peelable resealable device

IT Enzymes, analysis
RL: ANT (Analyte); ANST (Analytical study)
(DNA-modifying; measuring enzyme activity using peelable and resealable devices comprising immobilized substrates)

IT Optical scanners
(flatbed; measuring enzyme activity using peelable and resealable devices comprising immobilized substrates)

IT Glass, uses
RL: DEV (Device component use); USES (Uses)
(gold-coated and self-assembled monomer-coated; measuring enzyme activity using peelable and resealable devices comprising immobilized substrates)

IT Carbohydrates, processes
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
(immobilization of; measuring enzyme activity using peelable and resealable devices comprising immobilized substrates)

IT Apparatus
Microtiter plates
Self-assembled monolayers
(measuring enzyme activity using peelable and resealable devices comprising immobilized substrates)

IT Enzymes, analysis
RL: ANT (Analyte); ANST (Analytical study)

(measuring enzyme activity using peelable and resealable devices comprising immobilized substrates)

IT Immobilization, molecular or cellular
(of substrates on base plates; measuring enzyme activity using peelable and resealable devices comprising immobilized substrates)

IT Polycarbonates, uses
RL: DEV (Device component use); USES (Uses)
(plate; measuring enzyme activity using peelable and resealable devices comprising immobilized substrates)

IT 7440-57-5, Gold, uses
RL: DEV (Device component use); USES (Uses)
(glass slide coated with; measuring enzyme activity using peelable and resealable devices comprising immobilized substrates)

IT 112-27-6, Tri(ethylene glycol)
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(maleimide-terminal groups in background of terminal; measuring enzyme activity using peelable and resealable devices comprising immobilized substrates)

IT 9013-05-2, Phosphatase 9023-09-0, Sulfotransferase **9025-82-5**, Phosphodiesterase 9027-41-2, Hydrolase 9031-44-1, Kinase 9031-56-5, Ligase 9032-92-2, Glycosidase 9033-07-2, Glycosyltransferase 9047-61-4, Transferase 9055-04-3, Lyase 9055-15-6, Oxidoreductase **9075-08-5**, Restriction endonuclease 98037-52-6, Abl kinase 101463-26-7, Platelet-derived growth factor receptor kinase 125149-26-0, Fibroblast growth factor receptor kinase 137632-03-2, Met kinase 140208-17-9, Lyn kinase 141349-87-3, Fyn kinase 148047-29-4, Tec kinase 148047-34-1, ZAP-70 kinase 344315-57-7, Polymerase 386705-49-3, VEGF receptor tyrosine kinase
RL: **ANT (Analyte)**; ANST (Analytical study)
(measuring enzyme activity using peelable and resealable devices comprising immobilized substrates)

IT 76-83-5, Triphenylmethylchloride 79-37-8, Oxalyl chloride 98-59-9, p-Toluenesulfonyl chloride 100-02-7, 4-Nitrophenol, reactions 122-52-1, Triethyl phosphite 507-09-5, Thiolacetic acid, reactions 1271-42-7, Ferrocenecarboxylic acid 2127-03-9, Aldrithiol-2 2695-48-9, 8-Bromo-1-octene 51779-32-9, Di-tert-butyl iminodicarboxylate 80307-12-6, .gamma.-Maleimidobutyric acid N-hydroxysuccinimide ester 130727-41-2 130727-44-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(measuring enzyme activity using peelable and resealable devices comprising immobilized substrates)

IT 129065-10-7P 190847-04-2P 496836-98-7P 496836-99-8P 496837-00-4P 496837-02-6P 496837-03-7P 496837-05-9P 496837-06-0P 496837-07-1P 496837-08-2P 496837-09-3P 496837-10-6P 496881-90-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(measuring enzyme activity using peelable and resealable devices comprising immobilized substrates)

IT 482593-18-0
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PYP (Physical process); ANST (Analytical study); PROC (Process); USES (Uses)
(peptide substrate for for Src kinase; measuring enzyme activity using peelable and resealable devices comprising immobilized substrates)

IT 79079-06-4, Epidermal growth factor receptor kinase 114051-78-4, Lck Kinase 141349-89-5, Src kinase 300865-11-6, Protein tyrosine phosphatase 1B
RL: ANT (Analyte); ANST (Analytical study)
(peptide substrate for; measuring enzyme activity using peelable and resealable devices comprising immobilized substrates)

IT 496836-97-6
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PYP (Physical process); ANST (Analytical study); PROC (Process); USES (Uses)
(substrate for Lck kinase; measuring enzyme activity using peelable and resealable devices comprising immobilized substrates)

IT 496836-96-5
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PYP (Physical process); ANST (Analytical study); PROC (Process); USES (Uses)
(substrate for protein tyrosine phosphatase 1B; measuring enzyme activity using peelable and resealable devices comprising immobilized substrates)

L60 ANSWER 16 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN

AN **2003:71754** HCAPLUS
DN 138:86091
ED Entered STN: 29 Jan 2003
TI Method and device for detecting analytes in fluids
IN Carpenter, Charles R.
PA Idexx Laboratories, Inc., USA
SO U.S., 50 pp., Cont.-in-part of U.S. Ser. No. 277,715.
CODEN: USXXAM
DT **Patent**
LA English
IC ICM G01N033-567
NCL 435007210; 435287100; 435287200; 435286500; 435007900; 435007100; 435810000; 435970000; 436518000; 436528000
CC 9-1 (Biochemical Methods)
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6511814	B1	20030128	US 1999-439024	19991112 <--
	US 6602719	B1	20030805	US 1999-277715	19990326 <--
	US 6551842	B1	20030422	US 2000-525151	20000314 <--
	CA 2332240	AA	20001005	CA 2000-2332240	20000324 <--
	WO 2000058730	A1	20001005	WO 2000-US7965	20000324 <--
	WO 2000058730	C2	20020711		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1082614	A1	20010314	EP 2000-919643	20000324 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	BR 2000006058	A	20010320	BR 2000-6058	20000324 <--
	JP 2002540427	T2	20021126	JP 2000-608177	20000324 <--
	AU 773121	B2	20040520	AU 2000-40299	20000324 <--
PRAI	US 1999-277715	A2	19990326 <--		
	US 1999-439024	A2	19991112 <--		
	US 2000-525151	A	20000314 <--		
	WO 2000-US7965	W	20000324 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6511814	ICM	G01N033-567
	NCL	435007210; 435287100; 435287200; 435286500; 435007900; 435007100; 435810000; 435970000; 436518000; 436528000

AB A disposable, dry chemical anal. system is disclosed which is broadly useful for the detection of a variety of analytes present in biol. fluids such as whole blood, serum, plasma, urine and cerebral spinal fluid. The invention discloses the use of the reaction interface that forms between two liqs. converging from opposite directions within a bibulous material. The discovery comprises a significant improvement over prior art disposable, anal. reagent systems in that the detectable reactant zone is visually distinct and sep. from the unreacted reagents allowing for the use of reaction indicators exhibiting only minor changes as well as extremely high concns. of reactants. In addition, staged, multiple reagents can be incorporated. Whole blood can be used as a sample without the need for sep. cell separating materials. Finally, the invention is useful for the detection of analytes in a broad variety of materials such as milk, environmental samples, and other samples containing target analytes.

ST test strip body fluid detection
IT Computer program
(INSPECTOR; method and device for detecting analytes in fluids)
IT Named reagents and solutions
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(Tinder's reagent; method and device for detecting analytes in fluids)
IT Blood analysis
Blood plasma
Blood serum
Body fluid
Calibration
Cell
Cerebrospinal fluid
Erythrocyte

Milk analysis
Urine analysis
(method and device for detecting analytes in fluids)

IT Albumins, analysis
Glycerides, analysis
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(method and device for detecting analytes in fluids)

IT Glass fibers, uses
RL: DEV (Device component use); USES (Uses)
(method and device for detecting analytes in fluids)

IT **Test kits**
(test strips; method and device for detecting analytes in fluids)

IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(total; method and device for detecting analytes in fluids)

IT 7727-37-9, Nitrogen, analysis
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(blood urea; method and device for detecting analytes in fluids)

IT 50-99-7, Glucose, analysis
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(determination in whole blood; method and device for detecting analytes in fluids)

IT 56-84-8, L-Aspartic acid, analysis 57-88-5, Cholesterol, analysis 60-27-5, Creatinine 69-93-2, Uric acid, analysis 635-65-4, Bilirubin, analysis 7439-95-4, Magnesium, analysis 7440-70-2, Calcium, analysis 7664-41-7, Ammonia, analysis 9000-86-6, Alanine aminotransferase 9000-92-4, Amylase 9001-15-4, Creatine kinase 9001-60-9, Lactate dehydrogenase 9001-62-1, Lipase **9001-78-9**, Alkaline phosphatase 9046-27-9, .gamma.-Glutamyl transferase
RL: **ANT (Analyte)**; BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(method and device for detecting analytes in fluids)

IT 1668-00-4, Arsenazo III
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(method and device for detecting analytes in fluids)

IT 298220-02-7, Hemasep L
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(method and device for detecting analytes in fluids)

IT 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9003-53-6, Polystyrene 9004-70-0, Nitrocellulose 25667-42-9, Polyethersulfone
RL: ARU (Analytical role, unclassified); DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); ANST (Analytical study); PROC (Process); USES (Uses)
(method and device for detecting analytes in fluids)

IT 138636-78-9, SUPOR
RL: DEV (Device component use); USES (Uses)
(method and device for detecting analytes in fluids)

RE.CNT 108 THERE ARE 108 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Amar; US 3902052 A 1975 HCAPLUS
(2) Anon; WO 8906138 1989 HCAPLUS
(3) Anon; WO 9118110 1991
(4) Anon; WO 9303176 1993 HCAPLUS
(5) Anon; WO 9420533 1994 HCAPLUS
(6) Anon; WO 9423300 1994 HCAPLUS
(7) Arai; US 4914020 A 1990 HCAPLUS
(8) Badal; US 5457030 A 1995
(9) Baker; US 4654127 A 1987
(10) Bauer; US 3811840 A 1974
(11) Baurain; US 4973465 A 1990 HCAPLUS
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L60 ANSWER 17 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2003:34374** HCAPLUS
Correction of: **2002:850246**
DN 138:51927
Correction of: 137:348420
ED Entered STN: 15 Jan 2003
TI Bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases
IN Short, Jay M.; Mathur, Eric J.; Lee, Edd; Bylina, Edward
PA USA
SO U.S. Pat. Appl. Publ., 47 pp., Cont.-in-part of U.S. Ser. No. 202,681.
CODEN: USXXCO
DT **Patent**
LA English
IC ICM C12N009-16
ICS C12Q001-68; G06F019-00; C07H021-04; C12P021-02; C12N005-06
NCL 435196000; 435006000; 702020000; 435069100; 435325000; 435320100; 536023200
CC 7-5 (Enzymes)
Section cross-reference(s): 3, 10, 16
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2002164751	A1	20021107	US 2001-902525	20010709 <--
WO 9748416	A1	19971224	WO 1997-US10784	19970619 <--
W: AU, CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
WO 2003006610	A2	20030123	WO 2002-US21693	20020709
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI US 1996-33752P	P	19960619 <--		
WO 1997-US10784	W	19970619 <--		
US 1999-202681	A2	19991223 <--		
US 2001-902525	A2	20010709		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2002164751	ICM	C12N009-16
	ICS	C12Q001-68; G06F019-00; C07H021-04; C12P021-02; C12N005-06
	NCL	435196000; 435006000; 702020000; 435069100; 435325000; 435320100; 536023200
US 2002164751	ECLA	C12N009/16 <--

AB The invention relates to microbial thermostable phosphatases and to polynucleotides encoding the thermostable phosphatases. The nucleotide sequences and the encoded amino acid sequences of the microbial thermostable phosphatases are claimed. In addition methods of designing new phosphatases and methods of use thereof are also provided. The thermostable phosphatases have increased activity and stability at increased pH and temperature
ST microbe phosphatase sequence thermostability design bioinformatics
IT Sequence homology **analysis**
(FASTA; bioinformatic identification, cloning, sequences and biocatalytic use of **microbial** thermostable phosphatases and design of new thermostable phosphatases)
IT Antibodies and Immunoglobulins

RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(against phosphatase; bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases)

IT Algorithm
Computer application
Computer program
(bioinformatic anal. using; bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases)

IT Genetic polymorphism
(bioinformatic detection of; bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases)

IT Ammonifex degensii
Aquifex
Bioinformatics
DNA sequences
Fermentation
Methanococcus igneus
Microorganism
Molecular cloning
Protein engineering
Protein sequences
Sequence homology **analysis**
Thermal stability
Thermococcus
Thermococcus alcaliphilus
Thermococcus celer
(bioinformatic identification, cloning, sequences and biocatalytic use of **microbial** thermostable phosphatases and design of new thermostable phosphatases)

IT Information systems
(data, bioinformatic anal. using; bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases)

IT Hydrolysis
(enzymic, of phosphates; bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases)

IT Probes (nucleic acid)
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(for detection of thermostable phosphatase gene; bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases)

IT Gene, microbial
RL: ANT (Analyte); BUU (Biological use, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(for phosphatase; bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases)

IT Genetic methods
(gene discovery; bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases)

IT Phosphates, biological studies
RL: BCP (Biochemical process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(hydrolysis of, by phosphatase; bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases)

IT Antibodies and Immunoglobulins
RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(monoclonal, against phosphatase; bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases)

IT PCR (polymerase chain reaction)
(mutagenesis using; bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases)

IT Combinatorial chemistry

Combinatorial library
(of small mols.; bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases)

IT Chemiluminescent substances
Fluorescent indicators
Isotope indicators
(oligonucleotide probe labeled by; bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases)

IT Enzymes, uses
Haptens
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(oligonucleotide probe labeled by; bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases)

IT DNA shuffling
Mutagenesis
(protein engineering using; bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases)

IT Mutagenesis
(site-directed, protein engineering using; bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases)

IT Molecules
(small, biocatalytic modification of; bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases)

IT Information systems
(storage, bioinformatic anal. using; bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases)

IT **9001-78-9P** 9013-05-2P, Phosphatase
RL: **ANT (Analyte)**; BPN (Biosynthetic preparation); BSU (Biological study, unclassified); CAT (Catalyst use); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases)

IT 479323-01-8 479323-02-9 479323-03-0 479323-04-1 479323-05-2
479323-06-3 479323-07-4 479323-08-5 479323-09-6 479323-10-9
479323-11-0 479323-12-1 479323-13-2 479323-14-3 479323-15-4
479323-16-5 479323-17-6 479323-18-7 479323-19-8 479323-20-1
RL: PRP (Properties)
(unclaimed nucleotide sequence; bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases)

IT 479323-28-9 479323-32-5 479323-33-6 479323-34-7 479323-35-8
479323-36-9
RL: PRP (Properties)
(unclaimed protein sequence; bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases)

IT 479323-21-2 479323-22-3 479323-23-4 479323-24-5 479323-25-6
479323-26-7 479323-27-8 479323-29-0 479323-30-3 479323-31-4
479323-37-0 479323-38-1 479323-39-2 479323-40-5 479323-41-6
479323-42-7 479323-43-8 479323-44-9 479323-45-0 479323-46-1
RL: PRP (Properties)
(unclaimed sequence; bioinformatic identification, cloning, sequences and biocatalytic use of microbial thermostable phosphatases and design of new thermostable phosphatases)

L60 ANSWER 18 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2003:5352** HCAPLUS
DN 138:52348
ED Entered STN: 03 Jan 2003
TI Hepatocytes for therapy and drug screening made from embryonic stem cells
IN Rambhatle, Lakshmi; Carpenter, Melissa K.
PA USA
SO U.S. Pat. Appl. Publ., 35 pp., Cont.-in-part of U.S. Ser. No. 12267.
CODEN: USXXCO
DT **Patent**
LA English
IC C12N005-08

NCL 435366000; 435370000
CC 9-11 (Biochemical Methods)
Section cross-reference(s): 1, 2, 15
FAN.CNT 13

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 2003003573	A1	20030102	US 2002-87142	20020301	<--
	WO 2001081549	A2	20011101	WO 2001-US13471	20010426	<--
	WO 2001081549	A3	20020523			
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
	US 6506574	B1	20030114	US 2001-872182	20010531	<--
	US 2002160511	A1	20021031	US 2001-1267	20011031	<--
PRAI	US 2000-200095P	P	20000427	<--		
	WO 2001-US13471	A	20010426			
	US 2001-872182	A2	20010531			
	US 2001-1267	A2	20011031			
	US 2000-718308	A	20001120	<--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
US 2003003573	IC	C12N005-08	
	NCL	435366000; 435370000	
US 2003003573	ECLA	C12N005/06B14	<--
US 6506574	ECLA	C12N005/06B14	<--
US 2002160511	ECLA	C12N005/06B14	<--

AB It has been discovered that when pluripotent stem cells are cultured in the presence of a hepatocyte differentiation agent, a population of cells is derived that has a remarkably high proportion of cells with phenotypic characteristics of liver cells. In one example, human embryonic stem cells are allowed to form embryoid bodies, and then combined with the differentiation agent n-butyrate, optionally supplemented with maturation factors. In another example, n-butyrate is added to human embryonic stem cells in feeder-free culture. Either way, a remarkably uniform cell population is obtained, which is predominated by cells with morphol. features of hepatocytes, expressing surface markers characteristic of hepatocytes, and having enzymic and biosynthetic activity important for liver function. Since stem cells readily proliferate in culture, this system provides an abundant source of cells of the hepatocyte lineage for a variety of applications, such as drug screening, and replenishing liver function in the context of clin. treatment.

ST hepatocyte differentiation embryonic stem cell human culture screening

IT Liver
(Kupffer cell; hepatocytes for therapy and drug screening made from embryonic stem cells)

IT Albumins, analysis
Asialoglycoprotein receptors
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(detection of expression of; hepatocytes for therapy and drug screening made from embryonic stem cells)

IT Human
Primates
(embryonic stem cells of; hepatocytes for therapy and drug screening made from embryonic stem cells)

IT Blood vessel
(endothelium; hepatocytes for therapy and drug screening made from embryonic stem cells)

IT Liver
(hepatocyte; hepatocytes for therapy and drug screening made from embryonic stem cells)

IT Animal tissue culture
Culture media
Drug screening
Immunoassay
(hepatocytes for therapy and drug screening made from embryonic stem cells)

IT Cytokines
Glucocorticoids

Hepatocyte growth factor
Hormones, animal, biological studies
Interleukin 1
Interleukin 6
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hepatocytes for therapy and drug screening made from embryonic stem cells)

IT Cell differentiation
(inducers; hepatocytes for therapy and drug screening made from embryonic stem cells)

IT .alpha.-Fetoproteins
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(non-expression of; hepatocytes for therapy and drug screening made from embryonic stem cells)

IT Embryo, animal
(stem cell; hepatocytes for therapy and drug screening made from embryonic stem cells)

IT Transforming growth factors
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(.alpha.-; hepatocytes for therapy and drug screening made from embryonic stem cells)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(.alpha.1-antitrypsin-specific; hepatocytes for therapy and drug screening made from embryonic stem cells)

IT Transforming growth factors
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(.beta.-; hepatocytes for therapy and drug screening made from embryonic stem cells)

IT **9001-39-2**, Glucose 6-phosphatase 9035-51-2, Cytochrome P 450, analysis 9041-92-3, .alpha.1-Antitrypsin
RL: **ANT (Analyte)**; BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(detection of expression of; hepatocytes for therapy and drug screening made from embryonic stem cells)

IT 67-68-5, Dmso, biological studies 127-19-5, Dimethylacetamide 156-54-7, Sodium butyrate 3073-59-4, Hexamethylene bisacetamide
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(differentiation inducer; hepatocytes for therapy and drug screening made from embryonic stem cells)

IT 329764-85-4, Cytochrome cyp1A1 330196-64-0, Cytochrome cyp1A2
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(expression of; hepatocytes for therapy and drug screening made from embryonic stem cells)

IT 9004-10-8, Insulin, biological studies 62031-54-3, Fgf 62229-50-9, Egf 67763-96-6, Igf1 67763-97-7, Igfii 106096-92-8, Hbgf1
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hepatocytes for therapy and drug screening made from embryonic stem cells)

IT 9076-57-7, Histone deacetylase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors; hepatocytes for therapy and drug screening made from embryonic stem cells)

IT 9005-79-2, Glycogen, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(storage of; hepatocytes for therapy and drug screening made from embryonic stem cells)

L60 ANSWER 19 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2002:889451** HCAPLUS
DN 137:381947
ED Entered STN: 22 Nov 2002
TI Methods and reagents for the rapid and efficient isolation of circulating cancer cells
IN Terstappen, Leon W. M. M.; Rao, Galla Chandra; O'Hara, Shawn Mark; Liberti, Paul A.; Gross, Steven; Doyle, Gerald
PA USA
SO U.S. Pat. Appl. Publ., 56 pp., Cont.-in-part of U.S. 6,365,362.
CODEN: USXXCO
DT **Patent**

LA English
IC ICM G01N033-574
NCL 435007230
CC 9-10 (Biochemical Methods)
Section cross-reference(s): 14
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 2002172987	A1	20021121	US 2002-79939	20020219	<--
	CA 2432361	AA	19990819	CA 1999-2432361	19990212	<--
	CA 2432363	AA	19990819	CA 1999-2432363	19990212	<--
	US 6365362	B1	20020402	US 1999-248388	19990212	<--
	US 2002009759	A1	20020124	US 2001-904472	20010713	<--
	US 6645731	B2	20031111			
	CA 2438112	AA	20030807	CA 2002-2438112	20020219	
	WO 2003065042	A1	20030807	WO 2002-US5233	20020219	
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW					
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
	EP 1360496	A1	20031112	EP 2002-806645	20020219	
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
	US 2003129676	A1	20030710	US 2002-269579	20021011	<--
PRAI	US 1998-74535P	P	19980212	<--		
	US 1998-110202P	P	19981130	<--		
	US 1998-110279P	P	19981130	<--		
	US 1999-248388	A2	19990212	<--		
	US 2001-268859P	P	20010216			
	US 2001-269270P	P	20010220			
	US 2001-269271P	P	20010220			
	CA 1999-2320418	A3	19990212	<--		
	US 2001-904472	A1	20010713			
	WO 2002-US5233	W	20020219			

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
US 2002172987	ICM	G01N033-574	
	NCL	435007230	
US 2002009759	ECLA	G01N033/574V	<--
US 2003129676	ECLA	B03C001/01; G01N033/574; G01N033/574V; G01N033/574V4; H01F001/00E10	<--

AB Methods and compns. are provided for detecting circulating tumor cells and assessing said cells for alterations in tumor-diathesis associated mols. Blood samples of women with stage III or metastatic breast cancer were reacted with anti-epithelial cell adhesion mol. monoclonal antibodies coupled to magnetic nanoparticles for immunomagnetic separation of epithelial cells from the blood. The separated cells were further reacted with phycoerythrin conjugated with anti-cytokeratin monoclonal antibody to cytokeratin, peridinin chlorophyll protein-labeled anti-CD45, and cyanine 5-labeled anti-HER-2. The samples were analyzed by FACS. The number of circulating tumor cells was determined and shown to be useful in assessing tumor progression.

ST reagent detection circulating cancer cell; breast cancer blood epithelial cell immunomagnetic sepn; fluorescence activated cell sorting tumor cell blood; metastasis circulating tumor cell blood assay

IT Keratins
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(10, monoclonal antibodies to; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Keratins
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(13, monoclonal antibodies to; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Antigens
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(17-1A, immobilization of antibody to; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Keratins
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(18, monoclonal antibodies to; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Keratins
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(4, monoclonal antibodies to; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Keratins
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(5, monoclonal antibodies to; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Keratins
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(6, monoclonal antibodies to; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Keratins
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(8, monoclonal antibodies to; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Cyclins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(A, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Transcription factors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(AP-1 (activator protein 1), tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(APC, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Cyclins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(B, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Transcription factors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(BRCA1, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Transcription factors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(BRCA2, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Antigens
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(Bard bladder tumor antigen, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Cyclins
Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(C, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Antigens
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(CA 15.5, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Antigens
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(CA 27-29, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Antigens
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(CD99/MIC2, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Carcinoembryonic antigen
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(CEA-15, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Carcinoembryonic antigen
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(CEA-19-3, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Cyclins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(D, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Cyclins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(E, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Cytometry
(FACS (fluorescence-activated cell sorting); methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Liquid chromatography
(FPLC; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(HCG, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(HGC, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(HPC1, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(IPO-38, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Multidrug resistance proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(LRP (lung resistance protein), tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Mucins
Mucins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(MUC1, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Mucins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(MUC2, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Transcription factors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(NM23, NDP kinase and, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Notch (receptor)
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(Notch1, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Antigens
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(PSMA (prostate specific membrane antigen), tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(PTEN/MMAC1, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Transcription factors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(SRC-1 (steroid receptor coactivator-1), tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Transcription factors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(Smad-4, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Antigens
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(TAG-72/CA 72-4, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT CD45 (antigen)
RL: ANT (Analyte); ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(allophycocyanin-antibody conjugate to or labeled with peridinin chlorophyll protein; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Biological materials
(anal. of; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Analysis
Process automation
(automated anal.; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Imaging
(bright field; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Transcription factors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(c-fos, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Transcription factors
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(c-myc, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Diagnosis
Diagnosis
(cancer; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Titration
(capillary volumetry; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Head, neoplasm
(carcinoma, head and neck cancer; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Bladder, neoplasm
Lung, neoplasm
Mammary gland, neoplasm
Ovary, neoplasm
Pancreas, neoplasm
Prostate gland, neoplasm
(carcinoma; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Dyes
(cell-specific; methods and reagents for rapid and efficient isolation

of circulating cancer cells)
IT Agglutinins and Lectins
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(chromatog., carbohydrate tumor diathesis-associated mol. anal. by; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Intestine, neoplasm
(colon, carcinoma; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Intestine, neoplasm
(colon; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Allophycocyanins
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(conjugates with antibody to CD45; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Phycoerythrins
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(conjugates, with antibody to cytokeratin; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(conjugates, with phycoerythrin, to cytokeratin; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Magnetic particles
(coupled to ligand; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Cell adhesion molecules
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(epithelial, malignant cell-binding ligand to; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Cytometry
(flow, multiparameter; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Glycoproteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(gp200 of renal cell carcinoma, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT **Immunoassay**
(immunoblotting; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT **Immunoassay**
(immunofluorescence microscopy; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT **Immunoassay**
(immunofluorometric; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT **Immunoassay**
(immunohistochem.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Antitumor agents
(labeled malignant cells sensitivity to; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Ligands
RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(labeled; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Cytometry
(laser scanning; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Nucleic acid amplification (method)
(library; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Nanoparticles
(magnetic, coated, with immobilized antibodies; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Bone, neoplasm
Lung, neoplasm
Mammary gland, neoplasm
(metastasis; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Bladder, neoplasm

Blood analysis
Carcinoma
Cell
Circulation
Gel electrophoresis
HPLC
Hematopoietic precursor cell
Histochemistry
Human
Liquid chromatography
Magnetic separation
Mammary gland, neoplasm
Mass spectrometry
Neoplasm
Northern blot hybridization
PCR (polymerase chain reaction)
Prognosis
Prostate gland, neoplasm
Southern blot hybridization
Test kits
Tumor markers
(methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Gene, animal
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Reagents
RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(monoclonal, biotinylated, complexes with streptavidin-magnetic nanoparticles; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(monoclonal, coupled to magnetic particle; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Neck, anatomical
(neoplasm, carcinoma, head and neck cancer; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(nuclear matrix protein NMP22, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Animal tissue culture
(of isolated malignant cells; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(p63, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Particles
(paramagnetic, with monoclonal antibodies to EPCAM; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Proteins
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(peridinin chlorophyll, conjugates with CD45; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Keratins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(reagents binding to intracellular; methods and reagents for rapid and efficient isolation of circulating cancer cells)

IT Kidney, neoplasm
(renal cell carcinoma, gp200 of, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer

cells)
IT Sample preparation
(semi-automated system for; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Imaging
(spectral; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(to Her-2/neu, assessing efficacy of breast cancer therapy with; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Androgen receptors
CA 125 (carbohydrate antigen)
CFTR (cystic fibrosis transmembrane conductance regulator)
Carbohydrates, analysis
Carcinoembryonic antigen
Epidermal growth factor receptors
Estrogen receptors
Fibrinogen degradation products
Filaggrin
Heregulins
Ki-67 antigen
Laminin receptors
Multidrug resistance proteins
Nucleic acids
P-glycoproteins
Progesterone receptors
Prostate-specific antigen
Proteins
Ras proteins
Urokinase-type plasminogen activator receptors
neu (receptor)
p53 (protein)
.alpha.-Fetoproteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Vaccines
(tumor, cells or cell components for; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT Antitumor agents
(vaccines, cells or cell components for; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT 10540-29-1, Tamoxifen
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(assessing efficacy of breast cancer therapy with; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT 61512-21-8, Thymosin
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(b-15, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT 25316-40-9, Adriamycin 71486-22-1, Vinorelbine
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(breast cancer metastasis response to treatment with, epithelial cells in blood in relation to; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT 180288-69-1, Trastuzumab
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(breast cancer response to treatment with, epithelial cells in blood in relation to; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT 9013-20-1, Streptavidin
RL: ARU (Analytical role, unclassified); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(coating on magnetic nanoparticles; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT 47165-04-8, DAPI
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(methods and reagents for rapid and efficient isolation of circulating

cancer cells)
IT 146368-14-1D, Cy 5, conjugates with antibody to HER-2
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT 58-85-5DP, Biotin, conjugates with antibody, complexes with streptavidin-magnetic nanoparticles
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT 533-48-2DP, Desthiobiotin, conjugates with EpCAM-labeled magnetic nanoparticles
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT 9014-08-8, Enolase
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(neuron-specific, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT 9026-51-1
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(nm23 and, tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT 33069-62-4, Taxol 114977-28-5, Taxotere
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prostate cancer response to treatment with, epithelial cells in blood in relation to; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT 50-28-2, Estradiol, analysis 53-43-0, DHEA 9001-15-4, Creatine kinase **9001-77-8** 9002-62-4, Prolactin, analysis 9025-26-7, Cathepsin D 9031-61-2, Thymidylate Synthase 9039-53-6, Urokinase-type plasminogen activator 50812-37-8, Glutathione-S-Transferase 51110-01-1, Somatostatin 62229-50-9, Epidermal growth factor 77271-19-3, O-6-Methylguanine-DNA methyltransferase 105844-41-5, Plasminogen activator inhibitor 146480-36-6, Matrix metalloproteinase 9 157482-36-5, JAK3 kinase
RL: **ANT (Analyte)**; BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT 142805-56-9
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(.alpha., tumor diathesis-associated mol.; methods and reagents for rapid and efficient isolation of circulating cancer cells)

L60 ANSWER 20 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2002:794210** HCAPLUS
DN 137:275361
ED Entered STN: 18 Oct 2002
TI Extended tethering approach for rapid identification of ligands
IN Erlanson, Daniel A.; Braisted, Andrew C.; McDowell, Robert; Prescott, John
PA USA
SO U.S. Pat. Appl. Publ., 35 pp., Cont.-in-part of U. S. Provisional Ser. No. 310,725.
CODEN: USXXCO
DT **Patent**
LA English
IC ICM C12Q001-68
ICS G01N033-53; G01N033-543
NCL 435007100
CC 9-14 (Biochemical Methods)
Section cross-reference(s): 1
FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002150947	A1	20021017	US 2001-990421	20011121 <--
	EP 1441228	A1	20040728	EP 2004-8373	20011120 <--
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    WO 2003046200        A2    20030605    WO 2002-US13061        20020424
    WO 2003046200        A3    20030724
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    WO 2003014308        A2    20030220    WO 2002-US24921        20020805
    WO 2003014308        A3    20040318
    WO 2003014308        C2    20040422
        W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
            PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
            UA, UG, UZ, VN, YU, ZA, ZM, ZW
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
            KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
            FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF,
            CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
    US 2003194745        A1    20031016    US 2002-214419         20020805 <--
    EP 1421379           A2    20040526    EP 2002-761258         20020805
        R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
PRAI US 2000-252294P     P     20001121  <--
    US 2001-310725P      P     20010807
    US 1998-105372       A3    19980626  <--
    US 2001-981547       A2    20011017
    EP 2001-995216       A3    20011120
    US 2001-990421       A3    20011121
    US 2002-121216       A     20020410
    WO 2002-US13061      W     20020424
    WO 2002-US14778      W     20020510
    WO 2002-US24921      W     20020805
CLASS
 PATENT NO.      CLASS  PATENT FAMILY CLASSIFICATION CODES
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 US 2002150947   ICM    C12Q001-68
                 ICS    G01N033-53; G01N033-543
                 NCL    435007100
 EP 1441228      ECLA   A41D020/00; B26F001/18                              <--
AB   The invention concerns a method for rapid identification and
     characterization of binding partners for a target mol., and for providing
     binding partners with improved binding affinity.  More specifically, the
     invention concerns an improved tethering method for the rapid
     identification of at least two binding partners that bind near one another
     to a target mol.  This approach is based on the design of a Small Mol.
     Extender (SME) that is tethered, via a reversible or irreversible covalent
     bond, to a Target Mol. (TM) at or near a first site of interest, and has a
     chemical reactive group reactive with small organic mols. to be screened for
     affinity to a second site of interest on the TM.  Accordingly, the SME is
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used for screening a plurality of ligand candidates to identify a ligand that has intrinsic binding affinity for a second site of interest on the TM. If desired, further SME's can be designed based on the identification of the ligand with binding affinity for the second site of interest, and the screening can be repeated to identify further ligands having intrinsic binding affinity for the same or other site(s) of interest on the same or related TM's.

ST combinatorial library tethering ligand Michael addn affinity drug screening

IT Interleukin 18
RL: ANT (Analyte); ANST (Analytical study)
(18; extended tethering approach for rapid identification of ligands)

IT Neurokinins
RL: ANT (Analyte); ANST (Analytical study)
(1; extended tethering approach for rapid identification of ligands)

IT CD28 (antigen)
RL: ANT (Analyte); ANST (Analytical study)
(B7; extended tethering approach for rapid identification of ligands)

IT Gene, animal
RL: ANT (Analyte); ANST (Analytical study)
(BACE; extended tethering approach for rapid identification of ligands)

IT Complement receptors
RL: ANT (Analyte); ANST (Analytical study)
(C5a; extended tethering approach for rapid identification of ligands)

IT Hepatitis
(C; extended tethering approach for rapid identification of ligands)

IT CD antigens
RL: ANT (Analyte); ANST (Analytical study)
(CD11A; extended tethering approach for rapid identification of ligands)

IT Glycoproteins
RL: ANT (Analyte); ANST (Analytical study)
(CD40-L (antigen CD40 ligand); extended tethering approach for rapid identification of ligands)

IT Gene, animal
RL: ANT (Analyte); ANST (Analytical study)
(CDK4; extended tethering approach for rapid identification of ligands)

IT Enzymes, **analysis**
RL: ANT (Analyte); ANST (Analytical study)
(DNA helicase; extended tethering **approach** for rapid identification of ligands)

IT Proteins
RL: ANT (Analyte); ANST (Analytical study)
(GRB-2 (growth factor receptor-bound protein 2); extended tethering approach for rapid identification of ligands)

IT Gene, animal
RL: ANT (Analyte); ANST (Analytical study)
(GSK-3; extended tethering approach for rapid identification of ligands)

IT Cell adhesion molecules
RL: ANT (Analyte); ANST (Analytical study)
(ICAM (intercellular adhesion mol.); extended tethering approach for rapid identification of ligands)

IT Gene, animal
RL: ANT (Analyte); ANST (Analytical study)
(Ick; extended tethering approach for rapid identification of ligands)

IT Antibodies and Immunoglobulins
Immunoglobulin receptors
RL: ANT (Analyte); ANST (Analytical study)
(IgE; extended tethering approach for rapid identification of ligands)

IT Gene, animal
RL: ANT (Analyte); ANST (Analytical study)
(LAR; extended tethering approach for rapid identification of ligands)

IT RANTES (chemokine)
RL: ANT (Analyte); ANST (Analytical study)
(MIPP3; extended tethering approach for rapid identification of ligands)

IT Transcription factors
RL: ANT (Analyte); ANST (Analytical study)
(NF-.kappa.B (nuclear factor of .kappa. light chain gene enhancer in B-cells); extended tethering approach for rapid identification of ligands)

IT Proteins
RL: ANT (Analyte); ANST (Analytical study)
(NP (nucleoprotein); extended tethering approach for rapid identification of ligands)

IT Gene, animal
RL: ANT (Analyte); ANST (Analytical study)
(Rac 2; extended tethering approach for rapid identification of ligands)
IT Transcription factors
RL: ANT (Analyte); ANST (Analytical study)
(STAT6 (signal transducer and activator of transcription 6); extended tethering approach for rapid identification of ligands)
IT Proteins
RL: ANT (Analyte); ANST (Analytical study)
(TRAF-1-6 (TNF receptor-associated factors 1-6); extended tethering approach for rapid identification of ligands)
IT Proteins
RL: ANT (Analyte); ANST (Analytical study)
(ZAP-70 (.zeta.-chain-associated protein, 70 kDa); extended tethering approach for rapid identification of ligands)
IT Chemistry
(addition compds.; extended tethering approach for rapid identification of ligands)
IT Enzymes, **analysis**
RL: ANT (Analyte); PRP (Properties); ANST (Analytical study)
(allosteric, inhibitors; extended tethering **approach** for rapid identification of ligands)
IT Proteins
RL: ANT (Analyte); ANST (Analytical study)
(apoptosis-regulating, 1 and 2; extended tethering approach for rapid identification of ligands)
IT Ketones, properties
RL: PRP (Properties)
(arylacyloxomethyl; extended tethering approach for rapid identification of ligands)
IT Proteins
RL: ANT (Analyte); PRP (Properties); ANST (Analytical study)
(associated with DNA/RNA synthesis or degradation; extended tethering approach for rapid identification of ligands)
IT Proteins
RL: ANT (Analyte); ANST (Analytical study)
(bax/bcl2; extended tethering approach for rapid identification of ligands)
IT Neurotrophic factor receptors
RL: ANT (Analyte); ANST (Analytical study)
(ciliary; extended tethering approach for rapid identification of ligands)
IT Bond
(covalent; extended tethering approach for rapid identification of ligands)
IT Affinity
Amino group
Carboxyl group
Combinatorial library
Disulfide group
Drug screening
Electrophiles
Eubacteria
Fungi
Human
Hydroxyl group
Mass spectrometry
Michael reaction
Nucleophiles
Rhinovirus
Virus
(extended tethering approach for rapid identification of ligands)
IT Antibodies and Immunoglobulins
Bone morphogenetic proteins
CD2 (antigen)
CD26 (antigen)
CD3 (antigen)
CD4 (antigen)
CD45 (antigen)
CTLA-4 (antigen)
Chemokine receptors
Chemokines
Cytokine receptors
Enzymes, **analysis**
Epidermal growth factor receptors

Granulocyte colony-stimulating factor receptors
Granulocyte-macrophage colony-stimulating factor receptors
Hormones, animal, **analysis**
Interleukin 1 receptors
Interleukin 10
Interleukin 11
Interleukin 12
Interleukin 13
Interleukin 15
Interleukin 2
Interleukin 3
Interleukin 4
Interleukin 5
Interleukin 6
Interleukin 8
Interleukins
LFA-1 (antigen)
Mdm2 protein
Neurotrophic factors
Peptides, **analysis**
Platelet-derived growth factors
Proteins
Receptors
Steroid receptors
Transcription factors
Tumor necrosis factors
p53 (protein)
RL: ANT (Analyte); ANST (Analytical study)
(extended tethering **approach** for rapid identification of ligands)

IT Ligands
RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)
(extended tethering approach for rapid identification of ligands)

IT Aldehydes, properties
Epoxides
Thiols (organic), properties
RL: PRP (Properties)
(extended tethering approach for rapid identification of ligands)

IT Blood coagulation
(factors of; extended tethering approach for rapid identification of ligands)

IT Functional groups
(fluorophosphonate; extended tethering approach for rapid identification of ligands)

IT Amide group
(halo-Me; extended tethering approach for rapid identification of ligands)

IT Ketones, properties
RL: PRP (Properties)
(halo-Me; extended tethering approach for rapid identification of ligands)

IT Receptors
RL: ANT (Analyte); ANST (Analytical study)
(lymphocyte cell surface; extended tethering approach for rapid identification of ligands)

IT Signal transduction, biological
(mols. for; extended tethering approach for rapid identification of ligands)

IT Receptors
RL: ANT (Analyte); ANST (Analytical study)
(p55 and p75 TNF; extended tethering approach for rapid identification of ligands)

IT Growth factors, animal
RL: ANT (Analyte); ANST (Analytical study)
(placental; extended tethering approach for rapid identification of ligands)

IT Dephosphorylation, biological
(protein dephosphorylase; extended tethering approach for rapid identification of ligands)

IT Esters, properties
RL: PRP (Properties)
(thio; extended tethering approach for rapid identification of ligands)

IT Heregulins
RL: ANT (Analyte); ANST (Analytical study)
(.alpha. and .beta. isoforms; extended tethering approach for rapid

identification of ligands)
IT Transforming growth factors
RL: ANT (Analyte); ANST (Analytical study)
(.alpha.-; extended tethering approach for rapid identification of ligands)
IT Functional groups
(.alpha.-halo acid; extended tethering approach for rapid identification of ligands)
IT Integrins
RL: ANT (Analyte); ANST (Analytical study)
(.alpha.L; extended tethering approach for rapid identification of ligands)
IT Integrins
RL: ANT (Analyte); ANST (Analytical study)
(.alpha.4.beta.1; extended tethering approach for rapid identification of ligands)
IT Transforming growth factors
RL: ANT (Analyte); ANST (Analytical study)
(.beta.-; extended tethering approach for rapid identification of ligands)
IT 9036-21-9
RL: ANT (Analyte); ANST (Analytical study)
(IV; extended tethering approach for rapid identification of ligands)
IT 146702-84-3, Tak-1 kinase
RL: ANT (Analyte); ANST (Analytical study)
(MEKK-1 kinase; extended tethering approach for rapid identification of ligands)
IT 9001-84-7, Phospholipase A2
RL: ANT (Analyte); ANST (Analytical study)
(cytosolic; extended tethering approach for rapid identification of ligands)
IT 9001-92-7, Proteinase 9002-62-4, Prolactin, analysis 9002-67-9, Luteinizing hormone 9002-68-0, Follicle stimulating hormone 9002-72-6, Growth hormone 9004-08-4, Cathepsin 9004-10-8, Insulin, analysis 9014-42-0, Thrombopoietin **9026-43-1**, Serine kinase 9055-67-8, Poly(ADP-ribose) polymerase 9061-61-4, Nerve growth factor 11085-36-2, Human placental lactogen 11096-26-7, Erythropoietin 37270-94-3, Oncostatin A 62031-54-3, Fibroblast growth factor 62229-50-9, Epidermal growth factor 65997-74-2, Cathepsin F 67763-96-6, Insulin-like growth factor 1 71965-46-3, Cathepsin S 97501-93-4, Tryptase 119699-77-3, Inositol 5-phosphatase SHIP-2 122191-40-6, Caspase 1 127464-60-2, Vascular endothelial growth factor 140208-22-6, Cdc25A phosphatase 148047-29-4, Tie2 receptor kinase 148640-14-6, Protein kinase Akt 149147-12-6, Protein tyrosine kinase BTK 151662-26-9, Protein tyrosine kinase ITK 151769-16-3, TACE 155215-87-5, Jnk kinase 165245-96-5, p38 Map kinase 169592-56-7, Caspase 3 177893-51-5, PAK-1 protein kinase 179241-78-2, Caspase 8 180189-96-2, Caspase 9 300842-01-7, TC-PTP 300865-11-6, PTP-1B 329743-16-0, PTP-.alpha. 362517-43-9, IKK2 kinase
RL: **ANT (Analyte)**; ANST (Analytical study)
(extended tethering approach for rapid identification of ligands)
IT 60-23-1, Cysteamine 60-24-2, Mercaptoethanol 70-18-8, Glutathione, uses 1892-31-5, Propanethioic acid 3483-12-3, Dithiothreitol 4023-53-4 5961-85-3 6892-68-8, Dithioerythritol
RL: NUU (Other use, unclassified); USES (Uses)
(extended tethering approach for rapid identification of ligands)
IT 52-90-4, L-Cysteine, uses
RL: NUU (Other use, unclassified); PRP (Properties); USES (Uses)
(extended tethering approach for rapid identification of ligands)
IT 56-45-1, L-Serine, properties 56-84-8, L-Aspartic acid, properties 56-86-0, L-Glutamic acid, properties 56-87-1, L-Lysine, properties 72-19-5, L-Threonine, properties 151-56-4, Aziridine, properties 420-12-2, Thiirane 13780-71-7, Boronic acid
RL: PRP (Properties)
(extended tethering approach for rapid identification of ligands)
IT 428819-41-4P, Benzoic acid, 2,6-dichloro-, (3S)-3-[[(acetylthio)acetyl]amino]-4-carboxy-2-oxobutyl ester
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(extended tethering approach for rapid identification of ligands)
IT 428819-38-9P, L-Aspartic acid, N-[(acetylthio)acetyl]-, 4-(1,1-dimethylethyl) ester 428819-39-0P, Pentanoic acid, 3-[[(acetylthio)acetyl]amino]-5-chloro-4-oxo-, 1,1-dimethylethyl ester, (3S)- 428819-40-3P, Benzoic acid, 2,6-dichloro-, (3S)-3-[[(acetylthio)acetyl]amino]-5-(1,1-dimethylethoxy)-2,5-dioxopentyl ester
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(extended tethering approach for rapid identification of ligands)
IT 52350-85-3, HIV integrase
RL: ANT (Analyte); ANST (Analytical study)
(of HIV; extended tethering approach for rapid identification of ligands)
IT 141436-78-4, Protein kinase C
RL: ANT (Analyte); ANST (Analytical study)
(.tau.; extended tethering approach for rapid identification of ligands)

L60 ANSWER 21 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2002:755097** HCAPLUS
DN 137:275028
ED Entered STN: 04 Oct 2002
TI Cloning, characterization and biotechnological use of Physcomitrella patens proteins and enzymes involved in the synthesis of amino acids, vitamins, cofactors, nucleotides and nucleosides
IN Lerchl, Jens; Renz, Andreas; Ehrhardt, Thomas; Reindl, Andreas; Cirpus, Petra; Bischoff, Friedrich; Frank, Markus; Freund, Annette; Duwenig, Elke; Schmidt, Ralf-Michael; Reski, Ralf
PA Germany
SO U.S. Pat. Appl. Publ., 107 pp.
CODEN: USXXCO
DT **Patent**
LA English
IC ICM C12N009-02
ICS C07H021-04; C12P021-02; C12N005-04
NCL 435189000
CC 7-5 (Enzymes)
Section cross-reference(s): 3, 11, 16
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2002142422	A1	20021003	US 2000-734017	20001212 <--
PRAI US 1999-171100P	P	19991216 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2002142422	ICM	C12N009-02
	ICS	C07H021-04; C12P021-02; C12N005-04
	NCL	435189000

AB Isolated nucleic acid mols., designated metabolic pathway protein (MP) nucleic acid mols., which encode novel MP proteins from Phycomitrella patens are are described. The cDNA sequences and the encoded amino acid sequences of a number of MP enzymes and proteins are disclosed. The invention also provides antisense nucleic acid mols., recombinant expression vectors containing MP protein nucleic acid mols., and host cells into which the expression vectors have been introduced. The invention still further provides isolated MP proteins, mutated MP proteins, fusion proteins, antigenic peptides and methods for the improvement of production of a desired compound from transformed cells, organisms or plants based on genetic engineering of MP protein genes in these organisms.
ST Physcomitrella metabolic pathway protein enzyme cDNA sequence
IT Transport proteins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); CAT (Catalyst use); PRP (Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)
(ADP/ATP carrier; cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)
IT Biological transport
(carrier-mediated; cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)
IT Algae
Microorganism
Moss
Plant cell
(cloning host; cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)
IT Alleles
Ceratodon purpureus
Culture media
Fermentation
Immunoassay
Metabolic pathways
Molecular cloning
Nucleic acid hybridization

Physcomitrella patens
Protein sequences
Seed
Test kits
Transformation, genetic
cDNA sequences
(cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)

IT Primers (nucleic acid)
Probes (nucleic acid)
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)

IT Amino acids, preparation
RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)

IT Coenzymes
RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)

IT Nucleosides, preparation
RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)

IT Nucleotides, preparation
RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)

IT Vitamins
RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)

IT Fusion proteins (chimeric proteins)
RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)

IT Transgene
RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)

IT Brevibacterium
Corynebacterium
(fermentation of fine chems. using recombinant; cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)

IT Chemicals
(fine, production of; cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)

IT Cell membrane
(recombinant proteins expression in; cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)

IT Diet
(supplements; cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)

IT Enzymes, biological studies
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); CAT (Catalyst use); PRP (Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)
(thiamine-synthesizing; cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)

IT Enzymes, biological studies

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); CAT (Catalyst use); PRP (Properties); BIOL (Biological study); PREP (Preparation); USES (Uses)
(thiazole-synthesizing; cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)

IT 9082-71-7P, Leucine dehydrogenase
RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); CAT (Catalyst use); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(-glutamate dehydrogenase; cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)

IT 9001-46-1P, Glutamate dehydrogenase
RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); CAT (Catalyst use); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(-leucine dehydrogenase; cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)

IT 9031-66-7P, Aminotransferase
RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); CAT (Catalyst use); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(Class V pyridoxal phosphate-dependent; cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)

IT 464976-74-7P 464976-76-9P 464976-78-1P 464976-80-5P 464976-82-7P
464976-84-9P 464976-86-1P 464976-88-3P 464976-90-7P 464976-92-9P
464976-94-1P 464976-96-3P 464976-98-5P 464977-00-2P 464977-02-4P
464977-04-6P 464977-06-8P 464977-08-0P 464977-10-4P 464977-12-6P
464977-14-8P 464977-16-0P 464977-18-2P 464977-20-6P 464977-22-8P
464977-24-0P 464977-26-2P 464977-28-4P 464977-30-8P 464977-32-0P
464977-35-3P 464977-36-4P 464977-38-6P 464977-40-0P 464977-42-2P
464977-44-4P 464977-46-6P 464977-48-8P 464977-50-2P 464977-52-4P
464977-54-6P 464977-56-8P
RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); CAT (Catalyst use); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino acid sequence; cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)

IT **9001-77-8P**, Acid phosphatase 9002-12-4P, Uricase 9013-03-0P, Nitrate reductase 9014-52-2P, Tryptophan synthase 9023-57-8P 9023-66-9P, Formyl tetrahydrofolate synthase 9023-97-6P, Threonine synthase **9025-82-5P**, Phosphodiesterase 9027-45-6P, Acetolactate synthase **9027-73-0P**, IMP-GMP 5'-nucleotidase 9028-69-7P, Methylene tetrahydrofolate reductase 9028-93-7P, IMP dehydrogenase 9031-46-3P, ATP phosphoribosyltransferase 9032-02-4P 9032-64-8P, Nucleotide pyrophosphatase 9033-23-2P, Methionine synthase 9054-65-3P, Branched chain amino acid transaminase 9055-59-8P, Dihydrodipicolinate synthase 9075-02-9P, Ketol-acid reductoisomerase 9075-82-5P, Riboflavin synthase 37278-24-3P, GDP-mannose pyrophosphorylase 37289-25-1P, Nucleotide pyrophosphatase 37290-89-4P, Cysteine synthase 37356-21-1P, Polyglutamyl synthetase 50812-24-3P, Isopropylmalate isomerase 56093-17-5P, 3-Methyl-2-oxobutanoate hydroxymethyltransferase 59536-73-1P, Phosphomannomutase 72906-87-7P, Ascorbate peroxidase 74870-74-9P, UMP synthase 171040-73-6P, Inosine-uridine nucleosidase
RL: **ANT (Analyte)**; BPN (Biosynthetic preparation); BSU (Biological study, unclassified); CAT (Catalyst use); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)

IT 464976-73-6 464976-75-8 464976-77-0 464976-79-2 464976-81-6
464976-83-8 464976-85-0 464976-87-2 464976-89-4 464976-91-8
464976-93-0 464976-95-2 464976-97-4 464976-99-6 464977-01-3
464977-03-5 464977-05-7 464977-07-9 464977-09-1 464977-11-5
464977-13-7 464977-15-9 464977-17-1 464977-19-3 464977-21-7
464977-23-9 464977-25-1 464977-27-3 464977-29-5 464977-31-9
464977-33-1 464977-34-2 464977-37-5 464977-39-7 464977-41-1
464977-43-3 464977-45-5 464977-47-7 464977-49-9 464977-51-3
464977-53-5 464977-55-7
RL: ANT (Analyte); BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(nucleotide sequence; cloning, characterization and biotechnol. use of Physcomitrella patens metabolic pathway proteins and enzymes)

IT 464980-96-9 464980-97-0 464980-98-1

RL: PRP (Properties)
(unclaimed nucleotide sequence; cloning, characterization and biotechnol. use of Physcomitrella patens proteins and enzymes involved in the synthesis of amino acids, vitamins, cofactors, nucleotides and nucleosides)

L60 ANSWER 22 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2002:575640** HCAPLUS
DN 137:136909
ED Entered STN: 02 Aug 2002
TI Monoclonal antibody to pyruvate kinase isoenzyme tumor M2-PK for its detection in feces used in the diagnosis of gastrointestinal malignancy
IN Eigenbrodt, Erich; Scheefers-Borchel, Ursula; Scheefers, Hans
PA Germany
SO U.S. Pat. Appl. Publ., 7 pp., Cont.-in-part of Appl. No. PCT/EP/00/09303.
CODEN: USXXCO
DT **Patent**
LA English
IC ICM G01N033-574
ICS G01N033-53; G01N033-537; G01N033-543
NCL 435007230
CC 7-1 (Enzymes)
Section cross-reference(s): 14, 15
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002102623	A1	20020801	US 2002-102755	20020322 <--
	DE 19945947	A1	20010329	DE 1999-19945947	19990924 <--
	WO 2001021826	A2	20010329	WO 2000-EP9303	20000922 <--
	WO 2001021826	A3	20011018		
	W: DE, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
PRAI	DE 1999-19945947	A	19990924 <--		
	WO 2000-EP9303	A2	20000922 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2002102623	ICM	G01N033-574
	ICS	G01N033-53; G01N033-537; G01N033-543
	NCL	435007230
US 2002102623	ECLA	G01N033/574C20; G01N033/574V <--

AB In order to selectively, qual. or/and quant. detect the pyruvate kinase isoenzyme of the tumor M2-PK type (tumor M2-PK) which serves as a tumor marker in human and animal feces to detect a malignant process in the gastrointestinal tract, tumor M2-PK is detected in a stool specimen by an immunoassay technique (such as ELISA). The test kit contains at least one monoclonal antibody (also called receptor R1 in the claims) secreted from hybridoma cell line clone 1 (DSM ACC 2155) which specifically binds tumor M2-PK and does not cross-react with any other pyruvate kinase isoenzyme. It also contains optional addnl. reagents that are necessary for carrying out an immunoassay, such as conjugates of peroxidase and streptavidin for biotinylated antibodies and related enzymic assay reagents in ELISA. The described method is useful for diagnosing malignant tumor growth in the gastrointestinal tract and in particular in the intestines.
ST monoclonal antibody detection pyruvate kinase isoenzyme tumor M2PK feces; ELISA pyruvate kinase tumor M2PK detection gastrointestinal neoplasm diagnosis; tumor marker M2PK gastrointestinal neoplasm diagnosis immunoassay
IT Oligonucleotides
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Aptamer, specifically binding to pyruvate kinase isoenzyme tumor M2; monoclonal antibody to pyruvate kinase isoenzyme tumor M2-PK for detection in feces used in diagnosis of gastrointestinal malignancy)
IT Animal cell line
(DSM-ACC-2155, hybridoma; monoclonal antibody to pyruvate kinase isoenzyme tumor M2-PK for detection in feces used in diagnosis of gastrointestinal malignancy)
IT Tumor markers
(M2-PK; monoclonal antibody to pyruvate kinase isoenzyme tumor M2-PK for detection in feces used in diagnosis of gastrointestinal malignancy)
IT Diagnosis
Diagnosis
(cancer; monoclonal antibody to pyruvate kinase isoenzyme tumor M2-PK for detection in feces used in diagnosis of gastrointestinal

malignancy)
IT Circulation
(collateral, for pyruvate kinase isoenzyme tumor M2 detection; monoclonal antibody to pyruvate kinase isoenzyme tumor M2-PK for detection in feces used in diagnosis of gastrointestinal malignancy)
IT Digestive tract, neoplasm
Intestine, neoplasm
(diagnosis of; monoclonal antibody to pyruvate kinase isoenzyme tumor M2-PK for detection in feces used in diagnosis of gastrointestinal malignancy)
IT **Test kits**
(diagnostic; monoclonal antibody to pyruvate kinase isoenzyme tumor M2-PK for detection in feces used in diagnosis of gastrointestinal malignancy)
IT Luminescence, chemiluminescence
(electrochemiluminescence, for pyruvate kinase isoenzyme tumor M2 detection; monoclonal antibody to pyruvate kinase isoenzyme tumor M2-PK for detection in feces used in diagnosis of gastrointestinal malignancy)
IT **Immunoassay**
(enzyme-linked immunosorbent assay, for pyruvate kinase isoenzyme tumor M2 detection; monoclonal antibody to pyruvate kinase isoenzyme tumor M2-PK for detection in feces used in diagnosis of gastrointestinal malignancy)
IT **Immunoassay**
Microbalances
(for pyruvate kinase isoenzyme tumor M2 detection; monoclonal antibody to pyruvate kinase isoenzyme tumor M2-PK for detection in feces used in diagnosis of gastrointestinal malignancy)
IT Animal
Human
(gastrointestinal malignancy diagnosis in; monoclonal antibody to pyruvate kinase isoenzyme tumor M2-PK for detection in feces used in diagnosis of gastrointestinal malignancy)
IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(labeled, soluble, to pyruvate kinase isoenzyme tumor M2; monoclonal antibody to pyruvate kinase isoenzyme tumor M2-PK for detection in feces used in diagnosis of gastrointestinal malignancy)
IT Feces
(monoclonal antibody to pyruvate kinase isoenzyme tumor M2-PK for detection in feces used in diagnosis of gastrointestinal malignancy)
IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(monoclonal, to pyruvate kinase isoenzyme tumor M2; monoclonal antibody to pyruvate kinase isoenzyme tumor M2-PK for detection in feces used in diagnosis of gastrointestinal malignancy)
IT **Immunoassay**
(using TRACE, for pyruvate kinase isoenzyme tumor M2 detection; monoclonal antibody to pyruvate kinase isoenzyme tumor M2-PK for detection in feces used in diagnosis of gastrointestinal malignancy)
IT **Immunoassay**
(using candelaber, for pyruvate kinase isoenzyme tumor M2 detection; monoclonal antibody to pyruvate kinase isoenzyme tumor M2-PK for detection in feces used in diagnosis of gastrointestinal malignancy)
IT **Immunoassay**
(using oscillating quartz crystals, for pyruvate kinase isoenzyme tumor M2 detection; monoclonal antibody to pyruvate kinase isoenzyme tumor M2-PK for detection in feces used in diagnosis of gastrointestinal malignancy)
IT 9003-99-0, Peroxidase 9013-20-1, Streptavidin
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(conjugated to peroxidase, used in ELISA; monoclonal antibody to pyruvate kinase isoenzyme tumor M2-PK for detection in feces used in diagnosis of gastrointestinal malignancy)
IT 58-85-5, Biotin
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(monoclonal antibody labeled with; monoclonal antibody to pyruvate kinase isoenzyme tumor M2-PK for detection in feces used in diagnosis of gastrointestinal malignancy)
IT **9001-59-6**, Pyruvate kinase
RL: **ANT (Analyte)**; BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(type tumor M2 (tumor M2-PK), as tumor marker; monoclonal antibody to pyruvate kinase isoenzyme tumor M2-PK for detection in feces used in diagnosis of gastrointestinal malignancy)

IT 28752-68-3, ABTS 75621-03-3, 1-Propanaminium, N,N-dimethyl-N-(3-sulfopropyl)-3-[[(3.alpha.,5.beta.,7.alpha.,12.alpha.)-3,7,12-trihydroxy-24-oxocholan-24-yl]amino]-, inner salt
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(used in ELISA; monoclonal antibody to pyruvate kinase isoenzyme tumor M2-PK for detection in feces used in diagnosis of gastrointestinal malignancy)

L60 ANSWER 23 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2002:522522** HCAPLUS
DN 137:75538
ED Entered STN: 12 Jul 2002
TI Analytical method
IN Ralph, Peter
PA USA
SO U.S. Pat. Appl. Publ., 16 pp.
CODEN: USXXCO
DT **Patent**
LA English
IC ICM G01N033-53
ICS G01N033-542; G01N033-537; G01N033-543
NCL 435007920
CC 9-10 (Biochemical Methods)
Section cross-reference(s): 1, 15
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2002090662	A1	20020711	US 2001-921161	20010801 <--
PRAI US 2000-225433P	P	20000815 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2002090662	ICM	G01N033-53
	ICS	G01N033-542; G01N033-537; G01N033-543
	NCL	435007920

AB The present invention discloses a general strategy of accurately quantitating the amount of an analyte present in a fluid sample in the presence of an interfering substance. The strategy is exemplified by the application of this strategy for quant. determination of serum HERCEPTIN level in patients undergoing HERCEPTIN therapy.

ST serum HERCEPTIN detn ELISA
IT Transforming proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(HER2; anal. method)
IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(IgG; anal. method)
IT Blood plasma
Blood serum
Human
Mammary gland, neoplasm
Paper
Protein sequences
Test kits
(anal. method)
IT Peptides, analysis
RL: ANT (Analyte); ANST (Analytical study)
(anal. method)
IT Antigens
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(anal. method)
IT Antibodies and Immunoglobulins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(anal. method)
IT Glass, uses
RL: DEV (Device component use); USES (Uses)
(anal. method)
IT Plastics, uses
RL: DEV (Device component use); USES (Uses)
(anal. method)
IT Acrylic polymers, uses
RL: DEV (Device component use); NUU (Other use, unclassified); USES (Uses)

(anal. method)
IT **Immunoassay**
(enzyme-linked immunosorbent assay; anal. method)
IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(monoclonal, 4D5; anal. method)
IT 440687-00-3
RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); BIOL (Biological study); USES (Uses)
(amino acid sequence; anal. method)
IT **9001-78-9**, Alkaline phosphatase
RL: **ANT (Analyte)**; BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(anal. method)
IT 180288-69-1, HERCEPTIN
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(anal. method)
IT 95-54-5, 1,2-Benzenediamine, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(anal. method)
IT 9003-53-6, Polystyrene
RL: DEV (Device component use); NUU (Other use, unclassified); USES (Uses)
(anal. method)
IT 9003-99-0, Peroxidase
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(horseradish; anal. method)

L60 ANSWER 24 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2002:505301** HCAPLUS
DN 137:59506
ED Entered STN: 05 Jul 2002
TI Detection of serine/threonine kinase activity in an immunoassay using a pre-phosphorylated substrate and applications to drug screening
IN Kramer, Joachim; Mander, Thomas; Bethell, Richard; Benson, Neil; Boyd, Helen; Greengrass, Pam; Kinloch, Ross
PA Germany
SO U.S. Pat. Appl. Publ., 16 pp.
CODEN: USXXCO
DT **Patent**
LA English
IC ICM G01N033-53
NCL 435007400
CC 7-1 (Enzymes)
Section cross-reference(s): 1
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2002086336	A1	20020704	US 2001-923716	20010807 <--
PRAI US 2000-224331P	P	20000811 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2002086336	ICM	G01N033-53
	NCL	435007400

AB The present invention describes a process for detecting threonine or serine kinase activity in an immunoassay using a pre-phosphorylated substrate. The invention further relates to a kit for carrying out the assay and to a preferably luminescently labeled ligand.
ST serine threonine kinase detn immunoassay prephosphorylated substrate drug screening
IT Enzyme functional sites
(active, peptide containing active site of JNK kinase as substrate; detection of serine/threonine kinase activity in immunoassay using pre-phosphorylated substrate and applications to drug screening)
IT Ligands
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(affinity; detection of serine/threonine kinase activity in immunoassay using pre-phosphorylated substrate and applications to drug screening)
IT Fluorometry
(correlation, immunoassay; detection of serine/threonine kinase activity in immunoassay using pre-phosphorylated substrate and applications to drug screening)
IT **Drug screening**

Isotope indicators
Protein motifs
Test kits
(detection of serine/threonine kinase activity in immunoassay using pre-phosphorylated substrate and applications to drug screening)

IT Antibodies and Immunoglobulins
Phosphopeptides
Phosphoproteins
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(detection of serine/threonine kinase activity in immunoassay using pre-phosphorylated substrate and applications to drug screening)

IT **Immunoassay**
(direct-binding; detection of serine/threonine kinase activity in immunoassay using pre-phosphorylated substrate and applications to drug screening)

IT Fluorometry
(fluorescence intensity distribution immunoassay; detection of serine/threonine kinase activity in immunoassay using pre-phosphorylated substrate and applications to drug screening)

IT **Immunoassay**
(fluorescence-polarization; detection of serine/threonine kinase activity in immunoassay using pre-phosphorylated substrate and applications to drug screening)

IT **Immunoassay**
(fluorescence; detection of serine/threonine kinase activity in immunoassay using pre-phosphorylated substrate and applications to drug screening)

IT Fluorescence resonance energy transfer
(immunoassay; detection of serine/threonine kinase activity in immunoassay using pre-phosphorylated substrate and applications to drug screening)

IT **Immunoassay**
(immunofluorometric; detection of serine/threonine kinase activity in immunoassay using pre-phosphorylated substrate and applications to drug screening)

IT Antibodies and Immunoglobulins
Peptides, biological studies
Proteins
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(labeled; detection of serine/threonine kinase activity in immunoassay using pre-phosphorylated substrate and applications to drug screening)

IT Affinity labeling
(ligand; detection of serine/threonine kinase activity in immunoassay using pre-phosphorylated substrate and applications to drug screening)

IT Luminescent substances
(luminescent tag; detection of serine/threonine kinase activity in immunoassay using pre-phosphorylated substrate and applications to drug screening)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(monoclonal; detection of serine/threonine kinase activity in immunoassay using pre-phosphorylated substrate and applications to drug screening)

IT Luminescent substances
(probes; detection of serine/threonine kinase activity in immunoassay using pre-phosphorylated substrate and applications to drug screening)

IT Enzymes, biological studies
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(reporter; detection of serine/threonine kinase activity in immunoassay using pre-phosphorylated substrate and applications to drug screening)

IT 155215-87-5, Protein kinase JNK
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(antibodies against; detection of serine/threonine kinase activity in immunoassay using pre-phosphorylated substrate and applications to drug screening)

IT **9026-43-1**, Serine/threonine kinase 142243-02-5, Mitogen-activated protein kinase 335605-46-4, MKK7 protein kinase
RL: **ANT (Analyte)**; THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(detection of serine/threonine kinase activity in immunoassay using pre-phosphorylated substrate and applications to drug screening)

IT 56-65-5, 5'-ATP, biological studies 86-01-1, 5'-GTP 289898-51-7, JNK1
289899-93-0, JNK2 291756-39-3, JNK3 400633-27-4 400653-74-9
438631-86-8
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(detection of serine/threonine kinase activity in immunoassay using pre-phosphorylated substrate and applications to drug screening)

L60 ANSWER 25 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2002:354033** HCAPLUS
DN 136:337383
ED Entered STN: 12 May 2002
TI Diagnostic assay system
IN Ray, Robert A.
PA USA
SO U.S. Pat. Appl. Publ., 15 pp.
CODEN: USXXCO
DT **Patent**
LA English
IC ICM G01N031-00
NCL 436067000
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 10, 14
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2002055176	A1	20020509	US 2001-929751	20010814 <--
PRAI US 2000-246775P	P	20001108 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2002055176	ICM	G01N031-00
	NCL	436067000

AB Disclosed is a method for performing an anal. assay by providing a kit for collecting and storing a test sample, the kit including a sample collection device, a sample storage device, and a printed material having indicated thereon an electronic address for accessing the result of the assay; using the kit to collect a specimen from a test subject at a first location such as the subject's home or a health care provider's office; transporting the collected specimen to an off-site laboratory; analyzing the specimen at the off-site laboratory; and reporting the result of the anal. over a computer communications network such as the Internet.
ST diagnostic assay system
IT Materials
(Blotter; diagnostic assay system)
IT Proteins
RL: ANT (Analyte); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(CR; diagnostic assay system)
IT Tools
(Lancet; diagnostic assay system)
IT Albumins, **analysis**
RL: ANT (Analyte); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(**Microalbumins**; diagnostic assay system)
IT Prion proteins
RL: ANT (Analyte); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(PrPSc; diagnostic assay system)
IT Materials
(Printed; diagnostic assay system)
IT Tools
(Razor; diagnostic assay system)
IT Tools
(Scissors; diagnostic assay system)
IT Apparatus
(Storage; diagnostic assay system)
IT Health
(care; diagnostic assay system)
IT Information systems
(code; diagnostic assay system)
IT Adeno-associated virus
Adenoviridae
Analytical apparatus
Arenaviridae
Bacillus (insect)

Bar code labels
Biological materials
Blood analysis
Bordetella
Borrelia
Brucella
Bunyaviridae
Chlamydia
Clostridium
Collecting apparatus
Communication
Computers
Coronaviridae
Corynebacterium
Cytomegalovirus
Diagnosis
Drying
Enterobacteriaceae
Eubacteria
Francisella
Fungi
Haemophilus
Hepatitis A virus
Hepatitis B virus
Hepatitis C virus
Hospitals
Human coxsackievirus
Human echovirus
Human herpesvirus 1
Human herpesvirus 2
Human herpesvirus 3
Human herpesvirus 4
Human immunodeficiency virus 1
Human immunodeficiency virus 2
Human poliovirus
Influenza A virus
Influenza B virus
Influenza C virus
Internet
Laboratories
Legionella
Leptospira
Listeria
Microorganism
Mycobacterium
Mycoplasma
Needles (tools)
Neisseria
Orbivirus
Packaging materials
Paper
Papillomavirus
Paramyxoviridae
Parvovirus
Polyomavirus
Poxviridae
Protozoa
Pseudomonas
Reoviridae
Rhabdoviridae
Rhinovirus
Rickettsia
Rotavirus
Samples
Staphylococcus
Storage
Streptococcus
Syringes
Test kits
Togaviridae
Transportation
Treponema
Urine analysis
Vibrionaceae
Virus
Yersinia

(diagnostic assay system)
IT Glycerides, analysis
Hemoglobins
Lipids, analysis
Prostate-specific antigen
RL: ANT (Analyte); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(diagnostic assay system)
IT Hemoglobins
RL: ANT (Analyte); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(glycohemoglobins; diagnostic assay system)
IT Lipoproteins
RL: ANT (Analyte); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(high-d.; diagnostic assay system)
IT Lipoproteins
RL: ANT (Analyte); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(low-d.; diagnostic assay system)
IT Information systems
(network, Communications; diagnostic assay system)
IT Information systems
(network, Global communications; diagnostic assay system)
IT Information systems
(network, Local area network; diagnostic assay system)
IT Information systems
(network, Wide area network; diagnostic assay system)
IT Retroviridae
(non-HIV; diagnostic assay system)
IT 57-88-5, Cholesterol, analysis 6027-13-0, Homocysteine 7440-70-2, Calcium, analysis 9000-86-6, Alanine transaminase **9001-77-8**, Acid phosphatase 14265-44-2, Phosphate, analysis 62572-11-6, Hemoglobin A1c
RL: **ANT (Analyte)**; DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(diagnostic assay system)

L60 ANSWER 26 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2002:276511** HCAPLUS
DN 136:304027
ED Entered STN: 12 Apr 2002
TI Sphingosine kinase, cloning, expression and methods of use
IN Spiegel, Sarah
PA USA
SO U.S. Pat. Appl. Publ., 24 pp.
CODEN: USXXCO
DT **Patent**
LA English
IC ICM A61K031-00
ICS C12Q001-00; C07H021-04; C12N009-12; C12N005-06
NCL 514001000
CC 1-1 (Pharmacology)
Section cross-reference(s): 7, 9, 15, 63
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002042358	A1	20020411	US 2001-796487	20010302 <--
PRAI US 2000-186352P	P	20000302 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2002042358	ICM	A61K031-00
	ICS	C12Q001-00; C07H021-04; C12N009-12; C12N005-06
	NCL	514001000

AB The invention provides mols. that encode sphingosine kinase, the enzyme that catalyzes the phosphorylation of sphingosine to form sphingosine-1-phosphate (SPP). Vectors and host cells which express sphingosine kinase are also provided, as are methods for evaluating the stimulatory or inhibitory effects of agents on sphingosine kinase production and activity. Because sphingosine-1-phosphate acts both intracellularly and extracellularly to affect many biol. processes, including mitogenesis, apoptosis, atherosclerosis, inflammation, etc., it is necessary to develop means of stimulating or inhibiting formation of the compound
ST sphingosine kinase cloning sequence antitumor screening
IT Diagnosis

(agents; sphingosine kinase, cloning, expression and methods of use)
IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(complexes with sphingosine kinase; sphingosine kinase, cloning, expression and methods of use)
IT Artery, disease
(coronary, restenosis; sphingosine kinase, cloning, expression and methods of use)
IT Nerve, disease
(diabetic neuropathy; sphingosine kinase, cloning, expression and methods of use)
IT Lipids, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(phosphorylation of; sphingosine kinase, cloning, expression and methods of use)
IT Artery, disease
(restenosis; sphingosine kinase, cloning, expression and methods of use)
IT Animal tissue culture
Antitumor agents
Cell migration
DNA sequences
Drug screening
Genetic vectors
Molecular cloning
Neoplasm
PCR (polymerase chain reaction)
Phosphorylation, biological
Protein sequences
Test kits
Transformation, genetic
(sphingosine kinase, cloning, expression and methods of use)
IT RNA
cDNA
RL: ANT (Analyte); ANST (Analytical study)
(sphingosine kinase-specifying; sphingosine kinase, cloning, expression and methods of use)
IT 409153-37-3
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(amino acid sequence; sphingosine kinase, cloning, expression and methods of use)
IT 385311-06-8, GenBank AF068748 385311-08-0, GenBank AF068749
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(nucleotide sequence; sphingosine kinase, cloning, expression and methods of use)
IT **50864-48-7P**, Sphingosine kinase
RL: **ANT (Analyte)**; BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(sphingosine kinase, cloning, expression and methods of use)
IT 123-78-4, Sphingosine 26993-30-6, Sphingosine-1-phosphate
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(sphingosine kinase, cloning, expression and methods of use)
IT 410801-47-7 410801-48-8 410801-49-9 410801-50-2 410801-51-3
RL: PRP (Properties)
(unclaimed nucleotide sequence; sphingosine kinase, cloning, expression and methods of use)
IT 409153-38-4 410801-37-5 410801-38-6 410801-39-7 410801-40-0
410801-41-1 410801-42-2 410801-43-3 410801-44-4 410801-45-5
410801-46-6
RL: PRP (Properties)
(unclaimed protein sequence; sphingosine kinase, cloning, expression and methods of use)

L60 ANSWER 27 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2002:252411** HCAPLUS
DN 136:290802
ED Entered STN: 04 Apr 2002
TI Cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein
IN Endress, Gregory A.; Rosen, Craig A.
PA Human Genome Sciences, Inc., USA
SO U.S., 53 pp.

CODEN: USXXAM
DT Patent
LA English
IC ICM C12P021-06
ICS C12N015-00; C12N015-09; C12N015-63; C12N015-70
NCL 435069100
CC 6-3 (General Biochemistry)
Section cross-reference(s): 1, 3, 13, 14
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 6365369	B1	20020402	US 1999-280839	19990330	<--
	US 2003050443	A1	20030313	US 2002-54976	20020125	<--
PRAI	US 1998-80311P	P	19980401	<--		
	US 1998-80898P	P	19980407	<--		
	US 1999-280839	A3	19990330	<--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
US 6365369	ICM	C12P021-06	
	ICS	C12N015-00; C12N015-09; C12N015-63; C12N015-70	
	NCL	435069100	
US 2003050443	ECLA	C07K014/47	<--

AB The present invention relates to a novel human protein called Prostate Specific Secreted Protein (PSSP), and isolated polynucleotides encoding this protein. Clone HPRCF77 was isolated from a human prostate cDNA library. This clone contains the entire coding region of PSSP. The clone HPRCF77 contains a cDNA having a total of 825 nucleotides, which encodes a predicted ORF of 178 amino acid residues. Northern anal. showed PSSP expression primarily in prostate. The PSSP protein has a predicted leader sequence. Also provided are vectors, host cells, antibodies, and recombinant methods for producing this human protein. The invention further relates to diagnostic and therapeutic methods useful for diagnosing and treating disorders related to this novel human protein.

ST prostate specific secreted protein human cDNA sequence; PSSP protein human cDNA sequence therapeutic diagnosis

IT Transcription factors
RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(NF-.kappa.B (nuclear factor of .kappa. light chain gene enhancer in B-cells), in high-throughput screening assay for T cell activity; cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein)

IT Proteins
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(PSSP (prostate specific secreted protein); cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein)

IT Transgene
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(animal; cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein)

IT Gene therapy
Genetic mapping
Human
Molecular cloning
Mutagenesis
Prostate gland
Protein sequences
cDNA sequences
(cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein)

IT Antibodies and Immunoglobulins
Fusion proteins (chimeric proteins)
Reporter gene
RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein)

IT Gene, animal
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(for prostate specific secreted protein; cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein)

IT Gene targeting
(gene knock-out; cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein)

IT Diagnosis
(genetic; cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein)

IT T cell (lymphocyte)
(high-throughput screening assay for; cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein)

IT Genetic element
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(interferon .gamma.-responsive element; cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein)

IT Diagnosis
(mol.; cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein)

IT Hematopoietic precursor cell
(myeloid, high-throughput screening assay for; cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein)

IT Nerve
(neuron, high-throughput screening assay for; cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein)

IT Biological transport
(permeation, high-throughput screening assay for; cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein)

IT Disease, animal
(prostate specific secreted protein expression-related; cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein)

IT Phosphorylation, biological
(protein, high-throughput screening assay for; cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein)

IT Animal
(transgenic; cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein)

IT **High throughput screening**
(using prostate specific secreted protein; cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein)

IT 406859-36-7DP, subfragments are claimed
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino acid sequence; cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein)

IT **9001-78-9**, Alkaline phosphatase 340830-03-7, Receptor protein tyrosine kinase
RL: **ANT (Analyte)**; DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein)

IT 406859-35-6D, subfragments are claimed
RL: BUU (Biological use, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nucleotide sequence; cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein)

IT 406862-74-6, 4: PN: US6365369 SEQID: 6 unclaimed DNA 406862-75-7, 5: PN: US6365369 SEQID: 7 unclaimed DNA 406862-76-8, 6: PN: US6365369 SEQID: 8 unclaimed DNA 406862-77-9, 7: PN: US6365369 SEQID: 9 unclaimed DNA 406862-78-0, 8: PN: US6365369 SEQID: 10 unclaimed DNA 406862-79-1, 9: PN: US6365369 SEQID: 11 unclaimed DNA 406862-80-4 406862-81-5 406862-82-6 406862-83-7 406862-85-9, 15: PN: US6365369 SEQID: 4 unclaimed DNA
RL: PRP (Properties)
(unclaimed nucleotide sequence; cloning, characterization, and

diagnostic and therapeutic use of human prostate specific secreted protein)
IT 406862-73-5 406862-84-8
RL: PRP (Properties)
(unclaimed protein sequence; cloning, characterization, and diagnostic and therapeutic use of human prostate specific secreted protein)
RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Alberts, B; Molecular Biology of the Cell, second edition 1989, P95
(2) Anon; WO 9733902 1997 HCAPLUS
(3) Anon; US 6025197 1998 HCAPLUS
(4) Anon; WO 9837093 1998 HCAPLUS
(5) Anon; WO 9837418 1998 HCAPLUS
(6) Anon; WO 9841628 1998 HCAPLUS
(7) Anon; WO 9906548 1999 HCAPLUS
(8) Anon; WO 9906550 1999 HCAPLUS
(9) Anon; WO 9940189 1999 HCAPLUS
(10) Anon; WO 9958675 1999 HCAPLUS
(11) Anon; WO 0004149 2000 HCAPLUS
(12) Anon; WO 0005367 2000 HCAPLUS
(13) Anon; WO 0012708 2000 HCAPLUS
(14) Anon; GenBank Accession No AA340605 1997
(15) Anon; GenBank Accession No AA367486 1997
(16) Anon; GenBank Accession No AA533247 1997
(17) Anon; GenBank Accession No AA559906 1997
(18) Anon; GenBank Accession No AA577045 1997
(19) Anon; GenBank Accession No AA716150 1997
(20) Anon; GenBank Accession No AA722847 1998
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(22) Krizman, D; Cancer Research 1996, V56, P5380 HCAPLUS
(23) Lin, M; Biochemistry 1975, V14(8), P1559 HCAPLUS
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(25) Robert, S; http://www.ncbi.nlm.nih.gov/ncicgap 1998
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(27) Ryan; US 4544545 A 1985 HCAPLUS
(28) Schwartz, G; Proc Natl Acad Sci USA 1987, V84, P6408 HCAPLUS
(29) Sheppard; US 6022847 A 2000 HCAPLUS
(30) Sheppard; US 6025197 A 2000 HCAPLUS

L60 ANSWER 28 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2002:241292** HCAPLUS
DN 136:275378
ED Entered STN: 28 Mar 2002
TI Cloning, sequence, therapeutic and diagnostic use of human pancreatic islet-specific glucose-6-phosphatase
IN Chen, Hong
PA USA
SO U.S. Pat. Appl. Publ., 55 pp., Cont.-in-part of U.S. Ser. No. 586,511.
CODEN: USXXCO
DT **Patent**
LA English
IC ICM C12P021-02
ICS C07H021-04; C12N009-00; C12N005-06
NCL 435069100
CC 7-5 (Enzymes)
Section cross-reference(s): 1, 3, 13, 63
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 2002037555	A1	20020328	US 2001-874132	20010604	<--
	US 6623947	B2	20030923			
	US 6627425	B1	20030930	US 2000-586511	20000602	<--
PRAI	US 2000-586511	A2	20000602	<--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
US 2002037555	ICM	C12P021-02	
	ICS	C07H021-04; C12N009-00; C12N005-06	
	NCL	435069100	
US 2002037555	ECLA	C12N009/16	<--
US 6627425	ECLA	C12N009/16	<--

AB The invention provides isolated cDNAs encoding human pancreatic islet-specific glucose-6-phosphatase proteins and nucleic acids having diagnostic, preventive, therapeutic, and other uses. These nucleic acids and proteins are useful for diagnosis, prevention, and therapy of a number of

human and other animal disorders. The invention also provides antisense nucleic acid mols., expression vectors containing the nucleic acid mols. of the invention, host cells into which the expression vectors have been introduced, and non-human transgenic animals in which a nucleic acid mol. of the invention has been introduced or disrupted. The invention still further provides isolated polypeptides, fusion polypeptides, antigenic peptides, and antibodies. Diagnostic, screening, and therapeutic methods utilizing compns. of the invention are also provided. The nucleic acids and polypeptides of the present invention are useful as modulating agents in regulating a variety of cellular processes, including those which are aberrant in diabetes and other disorders associated with pancreatic dysfunction. The invention includes methods of modulating secretion of pancreatic hormones such as insulin and glucagon, and these methods can be used to alleviate disorders (e.g., diabetes and hyperinsulinemia) associated with aberrant secretion of these hormones.

ST pancreatic islet glucose phosphatase human cDNA sequence diagnosis therapy

IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(anti-glucose-6-phosphatase; cloning, sequence, therapeutic and diagnostic use of human pancreatic islet-specific glucose-6-phosphatase)

IT Alleles
Antidiabetic agents
Drug screening
Gene therapy
Human
Immunoassay
Molecular cloning
Nucleic acid hybridization
Pancreas
Pancreatic islet of Langerhans
Protein sequences
Test kits
cDNA sequences
(cloning, sequence, therapeutic and diagnostic use of human pancreatic islet-specific glucose-6-phosphatase)

IT mRNA
RL: ANT (Analyte); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(cloning, sequence, therapeutic and diagnostic use of human pancreatic islet-specific glucose-6-phosphatase)

IT Primers (nucleic acid)
RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(cloning, sequence, therapeutic and diagnostic use of human pancreatic islet-specific glucose-6-phosphatase)

IT Probes (nucleic acid)
RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(cloning, sequence, therapeutic and diagnostic use of human pancreatic islet-specific glucose-6-phosphatase)

IT Antisense oligonucleotides
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cloning, sequence, therapeutic and diagnostic use of human pancreatic islet-specific glucose-6-phosphatase)

IT Signal transduction, biological
(islet-specific glucose-6-phosphatase-mediated; cloning, sequence, therapeutic and diagnostic use of human pancreatic islet-specific glucose-6-phosphatase)

IT Animal cell
(mammalian, cloning host; cloning, sequence, therapeutic and diagnostic use of human pancreatic islet-specific glucose-6-phosphatase)

IT Diagnosis
(mol.; cloning, sequence, therapeutic and diagnostic use of human pancreatic islet-specific glucose-6-phosphatase)

IT Transgene
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(non-human; cloning, sequence, therapeutic and diagnostic use of human pancreatic islet-specific glucose-6-phosphatase)

IT Secretion (process)
(protein, modulation of insulin secretion; cloning, sequence, therapeutic and diagnostic use of human pancreatic islet-specific glucose-6-phosphatase)

IT 405565-64-2DP, Phosphatase, glucose 6- (human), subfragments are claimed

RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino acid sequence; cloning, sequence, therapeutic and diagnostic use of human pancreatic islet-specific glucose-6-phosphatase)

IT **9001-39-2P**, Glucose-6-phosphatase
RL: **ANT (Analyte)**; BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(cloning, sequence, therapeutic and diagnostic use of human pancreatic islet-specific glucose-6-phosphatase)

IT 50-99-7, Glucose, biological studies 56-73-5, Glucose-6-phosphate
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(cloning, sequence, therapeutic and diagnostic use of human pancreatic islet-specific glucose-6-phosphatase)

IT 9004-10-8, Insulin, biological studies
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); BIOL (Biological study)
(modulation of secretion and treatment of hyperinsulinemia; cloning, sequence, therapeutic and diagnostic use of human pancreatic islet-specific glucose-6-phosphatase)

IT 405565-62-0D, subfragments are claimed 405565-63-1D, DNA (human glucose-6-phosphatase cDNA), subfragments are claimed
RL: ANT (Analyte); BUU (Biological use, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(nucleotide sequence; cloning, sequence, therapeutic and diagnostic use of human pancreatic islet-specific glucose-6-phosphatase)

IT 405716-06-5
RL: PRP (Properties)
(unclaimed nucleotide sequence; cloning, sequence, therapeutic and diagnostic use of human pancreatic islet-specific glucose-6-phosphatase)

IT 405716-07-6 405716-08-7 405716-09-8 405716-10-1 405716-11-2
RL: PRP (Properties)
(unclaimed protein sequence; cloning, sequence, therapeutic and diagnostic use of human pancreatic islet-specific glucose-6-phosphatase)

L60 ANSWER 29 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2002:107863** HCAPLUS
DN 136:147455
ED Entered STN: 10 Feb 2002
TI Microarrays and their manufacture by slicing
IN Anderson, Norman G.; Anderson, N. Leigh; Braatz, James A.
PA USA
SO U.S. Pat. Appl. Publ., 38 pp., Cont.-in-part of U.S. Ser. No. 628,339.
CODEN: USXXCO
DT **Patent**
LA English
IC ICM C12Q001-68
ICS C12M001-34; B32B031-00
NCL 435006000
CC 9-1 (Biochemical Methods)
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002015952	A1	20020207	US 2001-774794	20010201 <--
	US 6713309	B1	20040330	US 2000-482460	20000113 <--
	WO 2002010761	A1	20020207	WO 2001-US23632	20010727 <--
	W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	US 1999-146653P	P	19990730 <--		
	US 2000-482460	A2	20000113 <--		
	US 2000-628339	A2	20000728 <--		
	US 2001-772974	A	20010131		

US 2001-774794 A 20010201

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2002015952	ICM	C12Q001-68
	ICS	C12M001-34; B32B031-00
	NCL	435006000
US 2002015952	ECLA	B01J019/00C; B01L003/00C2D8; C12Q001/68B10A; G01N033/543H; G01N033/543K <--
US 6713309	ECLA	B01J019/00C; B01L003/00C2D8; C12Q001/68B10A; G01N033/543H; G01N033/543K <--

AB The present invention relates to a method for producing rods or tubules, each containing a different entrapped or attached biomols. to produce large number of identical arrays or chips for performing a variety of different quant. biochem. anal., for example, enzymic activities, small mol. binding, nucleic acid hybridization, immunochem. activities etc. The various methods used include optical absorbance, chemiluminescence or fluorescence to produce signals which can be processed electronically and compared to produce clin. and exptl. useful data.

ST microarray fabrication multianalyte detection

IT Glutamate receptors
RL: BSU (Biological study, unclassified); DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(2; microarrays and manufacture by slicing for multianalyte detection)

IT Proteins
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(G; microarrays and manufacture by slicing for multianalyte detection)

IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(IgG; microarrays and manufacture by slicing for multianalyte detection)

IT Diagnosis
(agents; microarrays and manufacture by slicing for multianalyte detection)

IT Antibodies and Immunoglobulins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(autoantibodies; microarrays and manufacture by slicing for multianalyte detection)

IT Affinity
Animal cell
Antibiotics
Blood serum
Bone marrow
Colloids
Cytomegalovirus
Dyes
Escherichia coli
Hepatitis
Hepatitis B virus
Human
Human herpesvirus
Human herpesvirus 3
Human herpesvirus 4
Human poliovirus
Hybridoma
Hydrogels
Immobilization, molecular or cellular
Influenza virus
Leukemia
Lysosome
Microarray technology
Microarray technology
Microorganism
Mitochondria
Mycobacterium tuberculosis
Organelle
Particles
Plant cell
Porosity
Respiratory syncytial virus
Rhinovirus
Streptococcus pyogenes
Virus
(microarrays and manufacture by slicing for multianalyte detection)

IT Haptoglobin
Transferrins

RL: ANT (Analyte); ANST (Analytical study)
(microarrays and manufacture by slicing for multianalyte detection)

IT Interferons
Oligonucleotides
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(microarrays and manufacture by slicing for multianalyte detection)

IT DNA
Lipids, **analysis**
Macromolecular compounds
Polymers, **analysis**
Proteins
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(**microarrays** and manufacture by slicing for multianalyte detection)

IT Antibodies and Immunoglobulins
Ligands
Nucleic acids
Polysaccharides, **analysis**
Receptors
RL: ARU (Analytical role, unclassified); PEP (Physical, engineering or chemical process); PYP (Physical process); ANST (Analytical study); PROC (Process)
(**microarrays** and manufacture by slicing for multianalyte detection)

IT Peptides, biological studies
RL: BSU (Biological study, unclassified); DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(microarrays and manufacture by slicing for multianalyte detection)

IT Antigens
Carbohydrates, biological studies
RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PEP (Physical, engineering or chemical process); PYP (Physical process); BIOL (Biological study); PROC (Process); USES (Uses)
(microarrays and manufacture by slicing for multianalyte detection)

IT Clays, uses
Diatomite
Fluoropolymers, uses
Glass fibers, uses
Plastics, uses
Waxes
RL: NUU (Other use, unclassified); USES (Uses)
(microarrays and manufacture by slicing for multianalyte detection)

IT Albumins, **analysis**
RL: ANT (Analyte); ANST (Analytical study)
(serum; **microarrays** and manufacture by slicing for multianalyte detection)

IT 60-54-8, Tetracycline 67-20-9, Nitrofurantoin 87-08-1, Penicillin V 114-07-8, Erythromycin 738-70-5, Trimethoprim 53994-73-3, Cefaclor 82419-36-1, Ofloxacin
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(microarrays and manufacture by slicing for multianalyte detection)

IT **9001-77-8** 9004-10-8, Insulin, analysis 9007-12-9, Calcitonin 9007-92-5, Glucagon, analysis 62229-50-9, Epidermal growth factor
RL: **ANT (Analyte)**; BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(microarrays and manufacture by slicing for multianalyte detection)

IT 27072-45-3, FITC
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(microarrays and manufacture by slicing for multianalyte detection)

IT 36875-25-9, Dimethylpimelimidate
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(microarrays and manufacture by slicing for multianalyte detection)

IT 1672-46-4, Digoxigenin 223715-35-3, Sypro red 260546-55-2, Sypro ruby
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(microarrays and manufacture by slicing for multianalyte detection)

IT 9003-53-6, Polystyrene
RL: DEV (Device component use); NUU (Other use, unclassified); USES (Uses)
(microarrays and manufacture by slicing for multianalyte detection)

IT 9002-84-0, Teflon 9004-54-0, Dextrans, uses 9005-32-7, Alginic acid 9012-36-6, Agarose
RL: NUU (Other use, unclassified); USES (Uses)
(microarrays and manufacture by slicing for multianalyte detection)

L60 ANSWER 30 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2001:886848** HCAPLUS
DN 136:33926
ED Entered STN: 07 Dec 2001
TI Cloning, detection and sequence of a human ribonuclease Zrnase1
IN Conklin, Darrell C.
PA USA
SO U.S. Pat. Appl. Publ., 37 pp.
CODEN: USXXCO
DT **Patent**
LA English
IC ICM C07H021-02
ICS C07H021-04
NCL 536023100
CC 7-5 (Enzymes)
Section cross-reference(s): 3, 13
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2001049434	A1	20011206	US 2001-801231	20010307 <--
US 2003064387	A1	20030403	US 2002-134249	20020422 <--
PRAI US 2000-187917P	P	20000308 <--		
US 2001-801231	A1	20010307		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2001049434	ICM	C07H021-02
	ICS	C07H021-04
	NCL	536023100
US 2003064387	ECLA	C12N009/22 <--

AB The present invention provides a novel human RNase, designated "Zrnase1". The present invention also provides Zrnase1 variant polypeptides and Zrnase1 fusion proteins, as well as nucleic acid mols. encoding such polypeptides and proteins, and methods for using these nucleic acid mols. and amino acid sequences. The amino acid sequence and the encoding cDNA sequence of human Zrnase1 are disclosed. The Zrnase1 gene is expressed in testicular tissue, indicating that Zrnase1 nucleotide sequences and anti-Zrnase1 antibodies can be useful for tissue differentiation. The present invention also provides methods for detecting the presence of Zrnase1 RNA in a biol. sample.

ST RNase Zrnase1 human cDNA sequence
IT Testis
(Zrnase1 expression in; cloning, detection and sequence of human RNase Zrnase1)
IT mRNA
RL: ANT (Analyte); ANST (Analytical study)
(Zrnase1-encoding; cloning, detection and sequence of human RNase Zrnase1)
IT Aves
Eubacteria
Fungi
Insecta
Plant cell
Yeast
(cloning host; cloning, detection and sequence of human RNase Zrnase1)
IT Human
Immunoassay
Molecular cloning
Nucleic acid hybridization
Protein sequences
cDNA sequences
(cloning, detection and sequence of human RNase Zrnase1)
IT Antibodies and Immunoglobulins
Probes (nucleic acid)
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(cloning, detection and sequence of human RNase Zrnase1)
IT Fusion proteins (chimeric proteins)
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(cloning, detection and sequence of human RNase Zrnase1)
IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(fragments; cloning, detection and sequence of human RNase Zrnase1)
IT Animal cell
(mammalian, cloning host; cloning, detection and sequence of human

RNase Zrnase1)
IT **9001-99-4P**, Ribonuclease
RL: **ANT (Analyte)**; BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)
(Zrnase1; cloning, detection and sequence of human RNase Zrnase1)
IT 380290-26-6DP, subfragments are claimed
RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)
(amino acid sequence; cloning, detection and sequence of human RNase Zrnase1)
IT 344007-43-8DP, subfragments are claimed
RL: BPN (Biosynthetic preparation); PRP (Properties); BIOL (Biological study); PREP (Preparation)
(amino acid sequence; cloning, detection and sequence of human RNase Zrnase1)
IT 360802-17-1D, subfragments are claimed 380290-24-4D, subfragments are claimed 380290-25-5D, subfragments are claimed
RL: ANT (Analyte); BUU (Biological use, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(nucleotide sequence; cloning, detection and sequence of human RNase Zrnase1)
IT 360325-24-2, 3: PN: WO0166710 SEQID: 3 unclaimed DNA
RL: PRP (Properties)
(unclaimed nucleotide sequence; cloning, detection and sequence of a human RNase Zrnase1)
IT 193153-62-7
RL: PRP (Properties)
(unclaimed sequence; cloning, detection and sequence of a human RNase Zrnase1)

L60 ANSWER 31 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2001:833810** HCAPLUS
DN 135:368953
ED Entered STN: 16 Nov 2001
TI High throughput screening for bioactive molecules by co-encapsulation and fluorescence activated cell sorting in genome expression library
IN Short, Jay M.; Keller, Martin
PA USA
SO U.S. Pat. Appl. Publ., 45 pp., Cont.-in-part of U.S. Ser. No. 685,432.
CODEN: USXXCO
DT **Patent**
LA English
IC ICM C12Q001-68
ICS C12N001-12
NCL 435006000
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 3
FAN.CNT 43

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 2001041333	A1	20011115	US 2000-738871	20001215	<--
	US 2003215798	A1	20031120	US 1997-876276	19970616	<--
	US 6174673	B1	20010116	US 1998-98206	19980616	<--
	AU 756201	B2	20030109	AU 2000-48933	20000731	<--
	AU 2000048933	A5	20001005			
	US 2002086279	A1	20020704	US 2001-875412	20010606	<--
	US 6677115	B2	20040113			
	CA 2393374	AA	20020418	CA 2001-2393374	20011010	<--
	WO 2002031203	A2	20020418	WO 2001-US31806	20011010	<--
	WO 2002031203	C2	20030703			
	WO 2002031203	A3	20030925			
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW					
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
	AU 2002011642	A5	20020422	AU 2002-11642	20011010	<--
	EP 1364052	A2	20031126	EP 2001-979708	20011010	<--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,					

IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

	US 2003219752	A1	20031127	US 2002-151469	20020517 <--
PRAI	US 1997-876276	A2	19970616	<--	
	US 1998-98206	A2	19980616	<--	
	US 1999-444112	A2	19991122	<--	
	US 2000-685432	A2	20001010	<--	
	AU 1997-11489	A3	19961206	<--	
	US 1997-988224	A1	19971210	<--	
	US 1999-214645	A2	19990927	<--	
	US 2000-495052	A2	20000131	<--	
	US 2000-498557	A2	20000204	<--	
	WO 2000-US3086	A2	20000204	<--	
	US 2000-522289	A2	20000309	<--	
	WO 2000-US6497	A2	20000309	<--	
	US 2000-535754	A2	20000327	<--	
	WO 2000-US8245	A2	20000327	<--	
	US 2000-594459	A2	20000614	<--	
	WO 2000-US16838	A2	20000614	<--	
	US 2000-636778	A2	20000811	<--	
	US 2000-687219	A3	20001012	<--	
	WO 2000-US32208	A2	20001122	<--	
	US 2000-738871	A	20001215	<--	
	US 2001-756459	A2	20010108		
	US 2001-761559	A2	20010116		
	US 2001-790321	A	20010221		
	US 2001-848185	A2	20010503		
	US 2001-894956	A	20010627		
	US 2001-309101P	P	20010731		
	WO 2001-US31806	W	20011010		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 20010041333	ICM	C12Q001-68
	ICS	C12N001-12
	NCL	435006000
US 2003215798	ECLA	C12N015/10C6; C12Q001/68A8 <--
US 2002086279	ECLA	C12Q001/00 <--

AB The present invention relates generally to screening of mixed populations of organisms or nucleic acids and more specifically to the identification of bioactive mols. and bioactivities by using high throughput screening techniques, including fluorescence activated cell sorting (FACS). The present invention adapts traditional eukaryotic flow cytometry cell sorting systems to high throughput screening for expression clones in prokaryotes. In the present invention, nucleic acid libraries derived from DNA, for example DNA directly isolated from the environment, are screened very rapidly for bioactivities of interest utilizing fluorescence activated cell sorting (FACS). In one aspect, the libraries, or clones of the libraries are biopanned as a step in the high throughput anal. The biopanning procedure refers to a process for identifying clones having a specified biol. activity by screening for sequence homol. in the library of clones, using at least one probe DNA comprising at least a portion of a DNA sequence encoding a polypeptide having the specified biol. activity; and detecting interactions with the probe DNA to a substantially complementary sequence in a clone. Accordingly, in one embodiment, the present invention provides a process for identifying clones having a specified activity of interest, which process comprises (i) generating one or more expression libraries derived from nucleic acid directly isolated from the environment; and (ii) screening said libraries utilizing a high throughput cell analyzer, e.g., a fluorescence activated cell sorter or a non-optical cell sorter, to identify said clones. More particularly, the invention provides a process for identifying clones having a specified activity of interest by (i) generating one or more libraries, e.g., expression libraries, made to contain nucleic acid directly or indirectly isolated from the environment; (ii) exposing said libraries to a particular substrate or substrates of interest; and (iii) screening said exposed libraries utilizing a high throughput cell analyzer, e.g., a fluorescence activated cell sorter or a non-optical cell sorter, to identify clones which react with the substrate or substrates.

ST screening bioactivity genome expression library encapsulation FACS

IT Cytometry
(FACS (fluorescence-activated cell sorting); high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome expression library)

IT Microorganism
(acidophilic; high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome

expression library)
IT Microorganism
(alkalophilic; high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome expression library)
IT Spheres
(beads, encapsulation of clones in; high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome expression library)
IT Erythrocyte
(cell membrane, encapsulation of clones in; high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome expression library)
IT Fluorescent indicators
Magnetic materials
(detectable mol.; high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome expression library)
IT Liposomes
Macrophage
(encapsulation of clones in; high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome expression library)
IT Glass beads
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(encapsulation of clones in; high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome expression library)
IT Cell membrane
(erythrocyte, encapsulation of clones in; high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome expression library)
IT Cell
(gel, encapsulation of clones in; high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome expression library)
IT Microorganism
(halophilic; high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome expression library)
IT Archaebacteria (Archaea)
Biochemical molecules
Drug screening
Genomic library
Microorganism
Nucleic acid library
Operon
Prokaryote
Sulfolobus solfataricus
(high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome expression library)
IT Drops
(microdroplets, gel, encapsulation of clones in; high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome expression library)
IT Spectroscopy
(multipole coupling; high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome expression library)
IT Encapsulation
(of clones; high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome expression library)
IT Metabolic pathways
(operons encoding; high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome expression library)
IT Microorganism
(psychrophilic; high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome expression library)
IT Magnetic field
(sensing device; high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome expression library)

IT Genetic methods
(two-hybrid screening; high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome expression library)
IT 138777-25-0
RL: ARU (Analytical role, unclassified); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(bioactive substrate; high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome expression library)
IT 9012-36-6, Agarose
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(encapsulation of clones in; high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome expression library)
IT 79956-01-7, Polyketide synthase
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(metabolic pathway encoding; high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome expression library)
IT 9001-62-1P, Lipase 9001-92-7P, Proteinase 9012-37-7P, Acylase 9012-56-0P, Amidase 9013-79-0P, Esterase 9024-90-2P, Nitrilase **9025-75-6P**, Phosphoprotein phosphatase 9031-44-1P, Kinase 9031-66-7P, Transaminase 9032-92-2P, Glycosidase 9033-07-2P, Glycosyl transferase 9038-14-6P, Monooxygenase 9048-63-9P, Epoxide hydrolase 37292-90-3P, Dioxygenase 42613-30-9P, Lignin peroxidase 82391-37-5P, Nitrile hydratase 93229-67-5P, Haloperoxidase 93792-13-3P, E.C. 1.11.1.14
RL: **ANT (Analyte)**; BPN (Biosynthetic preparation); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)
(screening for; high throughput screening for bioactive mols. by co-encapsulation and fluorescence activated cell sorting in genome expression library)

L60 ANSWER 32 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2001:772087** HCAPLUS
DN 135:341173
ED Entered STN: 24 Oct 2001
TI Nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes
IN Charych, Deborah H.; Jonas, Ulrich
PA Regents of the University of California, USA
SO U.S., 96 pp., Cont.-in-part of U.S. Ser. No. 461,509.
CODEN: USXXAM
DT **Patent**
LA English
IC C12Q001-68; C07H019-00; G01N033-543; G01N021-00
NCL 435006000
CC 9-5 (Biochemical Methods)
Section cross-reference(s): 3
FAN.CNT 11

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 6306598	B1	20011023	US 1999-337973	19990621	<--
	US 6001556	A	19991214	US 1996-592724	19960126	<--
	EP 1460423	A1	20040922	EP 2004-1595	19960213	<--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE					
	US 6183772	B1	20010206	US 1996-609312	19960301	<--
	US 6022748	A	20000208	US 1997-920501	19970829	<--
	US 6080423	A	20000627	US 1997-944257	19971006	<--
	US 6180135	B1	20010130	US 1997-944323	19971006	<--
	US 6468759	B1	20021022	US 1998-33557	19980302	<--
	CA 2330937	AA	19991229	CA 1999-2330937	19990622	<--
	JP 2004500006	T2	20040108	JP 2000-556063	19990622	<--
	US 6395561	B1	20020528	US 1999-461509	19991214	<--
	US 6485987	B1	20021126	US 2000-500295	20000208	<--
	US 2001026915	A1	20011004	US 2000-734410	20001211	<--
	US 6660484	B2	20031209			
PRAI	US 1992-976697	A2	19921113	<--		
	US 1993-159927	A2	19931130	<--		
	US 1994-289384	B2	19940811	<--		
	US 1994-289384	B2	19940811	<--		

US 1994-328237	B2	19941024	<--
US 1995-389475	B3	19950213	<--
US 1995-389475	B2	19950213	<--
US 1996-592724	A3	19960126	<--
US 1996-609312	A2	19960301	<--
US 1997-38383P	P	19970214	<--
US 1997-39749P	P	19970303	<--
US 1997-50496P	P	19970623	<--
US 1997-920501	A3	19970829	<--
US 1997-944323	A2	19971006	<--
US 1998-23898	A2	19980213	<--
US 1998-33557	A2	19980302	<--
US 1998-90266P	P	19980622	<--
US 1998-103344	A2	19980623	<--
US 1999-461509	A2	19991214	<--
US 2000-500295	A2	20000208	<--
US 1992-982189	B2	19921125	<--
EP 1996-906444	A3	19960213	<--
US 1997-944257	A3	19971006	<--
US 1999-337973	A	19990621	<--
WO 1999-US14029	W	19990622	<--
US 1999-170190P	P	19991210	<--

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
US 6306598	IC	C12Q001-68IC C07H019-00IC G01N033-543IC G01N021-00	
	NCL	435006000	
US 6001556	ECLA	G01N033/543K2	<--
US 6183772	ECLA	G01N033/58H2	<--
US 6022748	ECLA	G01N033/543D; G01N033/552	<--
US 6080423	ECLA	G01N033/543D2; G01N033/58H2	<--
JP 2004500006	FTERM	4B024/AA11; 4B024/AA14; 4B024/CA01; 4B024/CA09; 4B024/CA11; 4B024/HA14; 4B029/AA21; 4B029/AA23; 4B029/CC03; 4B029/CC08; 4B063/QA01; 4B063/QA18; 4B063/QQ06; 4B063/QQ10; 4B063/QR56; 4B063/QR84; 4B063/QS34; 4B063/QS39; 4B063/QX01	<--
US 6395561	ECLA	G01N033/543K2	<--
US 6485987	ECLA	C03C004/00B; C03C014/00H; G01N033/543D; G01N033/552	<--

AB The present invention relates to methods and compns. for the direct detection of analytes and membrane conformational changes through the detection of color changes in biopolymeric materials. In particular, the present invention provides for the direct colorimetric detection of analytes using nucleic acid ligands at surfaces of polydiacetylene liposomes and related mol. layer systems. Liposomes were prepared from a lipid mixture of 95% 5,7-docsoadiynoic acid and 5% 5,7-docosadiynoate succinimide. The liposome solution was photopolymd. with UV light (254 nm) and then reacted with RGGGAATTCGTR (R = OP(OH)(O)OCH2(CH2OH)CH(CH2)4NH2) to make a probe.

ST nucleic acid coupled colorimetry polydiacetylene liposome

IT Neisseria gonorrhoeae
Vibrio vulnificus
(antibodies as ligands in detection of; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Amino group
Hydroxyl group
(as head groups in self-assembling monomer; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Amino acids, uses
Carboxylic acids, uses
RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)
(as head groups in self-assembling monomer; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Carbohydrates, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(as ligand in biopolymeric detector; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Filters
(biopolymer immobilized on support of; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Fluoropolymers, uses

Glass, uses
Mica-group minerals, uses
RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(biopolymer immobilized on support of; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Films
(biopolymeric; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Toxins
RL: ANT (Analyte); ANST (Analytical study)
(cholera; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Molecular recognition
(complexes; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Blood products
(components, detection of; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Sialic acids
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(conjugates, diacetylene derivs.; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Lipids, biological studies
Nucleic acids
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(conjugates; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Bacteria (Eubacteria)
Drugs
Fungi
Human immunodeficiency virus 1
Influenza virus
Ions
Parasite
Pathogen
Virus
(detection of; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Amino acids, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(diacetylene derivs.; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT DNA
RL: ANT (Analyte); ANST (Analytical study)
(double-stranded; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Toxins
RL: ANT (Analyte); ANST (Analytical study)
(enterotoxins, Escherichia; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Disease, animal
(genetic; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Functional groups
Molecules
(hydrophobic; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Antibodies
RL: ARG (Analytical reagent use); DEV (Device component use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(immobilized; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Erythrocyte
(in malarial Plasmodium detection with sialic acid-containing PDA films; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Genetic element
RL: ANT (Analyte); ANST (Analytical study)
(intron, RNA; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Organelle

(lamella; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Aldehydes, properties
Amines, properties
Thiols (organic), properties
RL: PRP (Properties)
(nucleic acid ligands linked to polymerized self-assembling lipids through; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Air analysis
Bacillus subtilis
Biosensors
Blood analysis
Chelating agents
Chromophores
Coils
Colorimetry
Conformation
Dopants
Electron acceptors
Electron donors
Escherichia coli
Functional groups
Helix (conformation)
Liposomes
Membranes, nonbiological
Nucleic acid hybridization
Pharmaceutical analysis
Plasmodium (malarial genus)
Self-assembled monolayers
Surfactants
Temperature
Urine analysis
Vibrio cholerae
pH
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Agglutinins and Lectins
Antibodies
DNA
Double stranded RNA
Enzymes, analysis
Hormones, animal, analysis
Nucleic acids
Receptors
Transcription factors
Volatile organic compounds
mRNA
rRNA
tRNA
RL: ANT (Analyte); ANST (Analytical study)
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Antigens
Proteins, general, analysis
RL: ANT (Analyte); ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Fibers
Sialic acids
Trisaccharides
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Biopolymers
Ligands
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)

IT Probes (nucleic acid)
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(nucleic acid-coupled colorimetric analyte detectors using

self-assembling polydiacetylene liposomes)
IT Cardiolipins
Ceramides
Cerebrosides
Lysophosphatidylcholines
Phosphatidic acids
Phosphatidylcholines, analysis
Phosphatidylethanolamines, analysis
Phosphatidylglycerols
Phosphatidylinositols
Phosphatidylserines
Polyoxyalkylenes, analysis
Sphingomyelins
Steroids, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT Immobilization, biochemical
(of biopolymer on support; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT Dot blot hybridization
(reverse; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT Lipids, biological studies
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(self-assembling; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT Holders
(supports, biopolymer immobilized on; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT Oligosaccharides, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(tetrasaccharides; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT Organelle
(tubule; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT Detergents
(zwitterionic; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 7440-57-5, Gold, uses 7631-86-9, Silica, uses 9002-84-0, Teflon 9002-88-4, Polyethylene 9003-53-6, Polystyrene 9012-36-6, Sepharose 9041-35-4, Sephadex G 25 25014-41-9, Polyacrylonitrile
RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(biopolymer immobilized on support of; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 7440-21-3, Silicon, uses
RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(chips, biopolymer immobilized on; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 9001-51-8, Hexokinase
RL: RCT (Reactant); RACT (Reactant or reagent)
(immobilization on PDA and NHS-PDA monolayer slides; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 66990-32-7, 10,12-Pentacosadiynoic acid 138305-24-5, 5,7-Pentacosadiynoic acid 178560-65-1, 5,7-Docosadiynoic acid
RL: ARG (Analytical reagent use); PRP (Properties); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses)
(in self-assembling monomer; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 369375-91-7
RL: ARG (Analytical reagent use); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses)
(liposomes containing; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 50-99-7, D-Glucose, analysis 9002-61-3, Chorionic gonadotropin 9026-81-7, Nuclease 9031-56-5, Ligase 37209-28-2, Bungarotoxin 120178-12-3, Telomerase 344315-57-7, Polymerase
RL: ANT (Analyte); ANST (Analytical study)
(nucleic acid-coupled colorimetric analyte detectors using

self-assembling polydiacetylene liposomes)
IT 9001-84-7, Phospholipase A2
RL: ANT (Analyte); ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT **9001-86-9, Phospholipase C 9001-87-0**
, Phospholipase D
RL: **ANT (Analyte)**; BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 56-23-5, Carbon tetrachloride, analysis 60-29-7, Diethylether, analysis 64-17-5, Ethanol, analysis 67-63-0, Isopropanol, analysis 67-66-3, Chloroform, analysis 71-36-3, 1-Butanol, analysis 71-43-2, Benzene, analysis 107-06-2, Ethylene dichloride, analysis 108-88-3, Toluene, analysis 110-82-7, Cyclohexane, analysis 111-27-3, 1-Hexanol, analysis 111-87-5, 1-Octanol, analysis
RL: ANT (Analyte); PRP (Properties); ANST (Analytical study)
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 71-00-1D, L-Histidine, conjugates with amine-coupled PDA, uses 18656-38-7, Dmpc 37758-47-7, Ganglioside GM1 104443-58-5, Ganglioside GT1b
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 137300-78-8, MJ33
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 370159-23-2 370159-24-3
RL: ARG (Analytical reagent use); PRP (Properties); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses)
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 370649-87-9P
RL: ARG (Analytical reagent use); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 57-88-5, Cholesterol, analysis 63-42-3D, Lactose, diacetylene derivs. 83-44-3 123-78-4 151-21-3, Sodium dodecyl sulfate, analysis 460-12-8D, Diacetylene, derivs. 9036-19-5, Octoxynol 25322-68-3, Polyethylene glycol 29557-51-5, Dodecylphosphocholine 34344-66-6 58846-77-8, Decylglucoside 140708-39-0 369375-82-6
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 66990-30-5, 10,12-Tricosadiynoic acid
RL: ARU (Analytical role, unclassified); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 7646-85-7, Zinc chloride, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 10108-64-2, Cadmium chloride (CdCl2)
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 146064-06-4P 369375-83-7P 369375-93-9P
RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 125110-42-1D, immobilized and protected 205266-20-2 370159-17-4
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)

(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 228723-67-9P 368951-38-6P 368951-39-7P 369375-90-6P 369375-99-5P 370159-18-5DP, immobilized and protected 370159-19-6P 370159-20-9P 370159-21-0P 370159-22-1P 370649-88-0DP, immobilized and protected
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 125110-43-2P 370649-89-1P 370649-90-4P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 108-24-7, Acetic anhydride 124-09-4, Hexamethylenediamine, reactions 141-43-5, Ethanolamine, reactions 302-01-2, Hydrazine, reactions 681-84-5, Tetramethylorthosilicate 929-75-9, Tetraethylene glycol diamine 6066-82-6, N-Hydroxy succinimide 53053-08-0 75495-27-1 136766-23-9 146064-10-0 369375-96-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 136766-21-7P 137870-33-8P 146064-07-5P 146064-08-6P 146064-09-7P 369375-84-8P 369375-86-0P 369375-88-2P 369375-94-0P 369375-97-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 88373-04-0P 146064-05-3P 369375-89-3P 369375-98-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
IT 151014-05-0, 4: PN: US6306598 SEQID: 1 unclaimed DNA
RL: PRP (Properties)
(unclaimed nucleotide sequence; nucleic acid-coupled colorimetric analyte detectors using self-assembling polydiacetylene liposomes)
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anon; WO 9214843 1992 HCAPLUS
(2) Charych; US 6001556 2000 HCAPLUS
(3) Charych; US 6022748 2000 HCAPLUS

L60 ANSWER 33 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2001:645636** HCAPLUS
DN 135:207893
ED Entered STN: 04 Sep 2001
TI Plating media for the presumptive identification of Bacillus cereus and Bacillus thuringiensis
IN Restaino, Lawrence
PA USA
SO U.S., 5 pp.
CODEN: USXXAM
DT **Patent**
LA English
IC ICM C12N001-00
ICS C12N001-12; C12N001-20
NCL 435252400
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 7, 10
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6284517	B1	20010904	US 1999-321529	19990528 <--
PRAI US 1999-321529		19990528 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6284517	ICM	C12N001-00
	ICS	C12N001-12; C12N001-20
	NCL	435252400

AB An isolation plating medium and mixture for simultaneously identifying Bacillus species are disclosed. The specific bacilli identified are Bacillus thuringiensis and Bacillus cereus. The medium and mixture contain nutrients, inhibitory ingredients to inhibit the growth of other bacteria yeast and molds and a chromogenic substrate. The substrate changes color in response to the production of **phosphatidylinositol**-specific **phospholipase C** for the identification of the bacteria.

ST plating media Bacillus cereus thuringiensis
IT Powders
(Meat extract; plating media for presumptive identification of Bacillus cereus and Bacillus thuringiensis)
IT Culture media
(Plating; plating media for presumptive identification of Bacillus cereus and Bacillus thuringiensis)
IT Yeast
(extract; plating media for presumptive identification of Bacillus cereus and Bacillus thuringiensis)
IT Bacillus cereus
Bacillus thuringiensis
Bacteria (Eubacteria)
Color formers
Colorimetry
Environment
Growth, microbial
Meat extracts
Mixtures
Mold (fungus)
Nutrients
Spore
Spore germination
Temperature
Thickening
Time
Yeast
(plating media for presumptive identification of Bacillus cereus and Bacillus thuringiensis)
IT Peptones
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(plating media for presumptive identification of Bacillus cereus and Bacillus thuringiensis)
IT Proteins, specific or class
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(proteoses; plating media for presumptive identification of Bacillus cereus and Bacillus thuringiensis)
IT **63551-76-8**, **Phosphatidylinositol**-specific **phospholipase C**
RL: **ANT (Analyte)**; BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(plating media for presumptive identification of Bacillus cereus and Bacillus thuringiensis)
IT 358333-23-0
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(plating media for presumptive identification of Bacillus cereus and Bacillus thuringiensis)
IT 66-81-9, Cycloheximide 113-24-6, Sodium pyruvate 1405-20-5, Polymixin B sulfate 7447-41-8, Lithium chloride, biological studies 7487-88-9, Magnesium sulfate, biological studies 7632-05-5, Sodium phosphate 9002-18-0, Agar 11111-12-9, Cephalosporins 16068-46-5, Potassium phosphate 64952-97-2, Moxalactam 72558-82-8, Ceftazidime
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(plating media for presumptive identification of Bacillus cereus and Bacillus thuringiensis)
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Burges; US 5063055 1991 HCAPLUS
(2) Horn; US 5523214 1996
(3) Horwitz; US 5783561 1998 HCAPLUS
(4) Restaino; Journal of Food Protection 1999, V62(3), P244 HCAPLUS

L60 ANSWER 34 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2001:630854** HCAPLUS
DN 135:192162
ED Entered STN: 30 Aug 2001
TI Simple non-radioactive assay for estimating protein kinase c and protein phosphatase-1
IN Rathinavelu, Appu; Malave, Andres
PA Nova Southeastern University, USA
SO U.S., 14 pp.
CODEN: USXXAM

DT **Patent**
LA English
IC ICM C12Q001-58
NCL 435015000
CC 7-1 (Enzymes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6280965	B1	20010828	US 1999-321253	19990526 <--

PRAI US 1999-321253 19990526 <--

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6280965	ICM	C12Q001-58
	NCL	435015000

AB The present invention is a simple, selective, rapid and a non-radioactive procedure for estimating the activity of protein kinases and protein phosphatases. The method involves attaching a suitable substrate to a 96-well plate surface and then measuring the activity of the specific enzymes using suitable incubating conditions. The PKC assay involves immobilizing histone (type III-SS), the substrate for PKC, and then determining the extent of phosphorylation by using ammonium molybdate and 1-amino-2-naphthol-4-sulfonic acid based reaction for inorg. phosphate quantitation. The PP-1 assay involves immobilizing phosphorylase-b substrate to the assay plate and then phosphorylating the substrate using phosphorylase kinase. Finally, the phosphate is hydrolyzed from the substrate by protein phosphatase. The assay methods are suitable for estimating PKC and PP-1 activity in tissue and cell samples without using any radiolabeled substrate.

ST nonradioactive assay protein kinase c phosphatase

IT Plates
(96-Well; simple non-radioactive assay for estimating protein kinase c and protein phosphatase-1)

IT Nucleotides, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Phosphoryl donor; simple non-radioactive assay for estimating protein kinase c and protein phosphatase-1)

IT **Immunoassay**
(apparatus, ELISA plate reader; simple non-radioactive assay for estimating protein kinase c and protein phosphatase-1)

IT Animal tissue
Buffers
Calorimeters
Cell
Colorimeters
Hydrolysis
Immobilization, biochemical
Interface
Phosphorylation
Reaction
Samples
Shaking apparatus
Solutions
Spectrometers
UV and visible spectroscopy
Washing
(simple non-radioactive assay for estimating protein kinase c and protein phosphatase-1)

IT Phosphates, analysis
RL: ANT (Analyte); ARU (Analytical role, unclassified); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(simple non-radioactive assay for estimating protein kinase c and protein phosphatase-1)

IT Histones
Peptides, reactions
Proteins, general, reactions
RL: ARG (Analytical reagent use); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses)
(simple non-radioactive assay for estimating protein kinase c and protein phosphatase-1)

IT Histones
RL: ARG (Analytical reagent use); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses)
(type III-SS; simple non-radioactive assay for estimating protein kinase c and protein phosphatase-1)

IT 14265-44-2, Phosphate, analysis

RL: ANT (Analyte); ARU (Analytical role, unclassified); ANST (Analytical study)
(simple non-radioactive assay for estimating protein kinase c and protein phosphatase-1)
IT **9025-75-6** 141436-78-4, Protein kinase C
RL: **ANT (Analyte)**; BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(simple non-radioactive assay for estimating protein kinase c and protein phosphatase-1)
IT 56-65-5, Adenosine triphosphate, uses 62-54-4, Calcium acetate 116-63-2, 1-Amino-2-naphthol-4-sulfonic acid 142-72-3, Magnesium acetate 3483-12-3, Dithiothreitol 9001-78-9, Alkaline phosphatase 9001-88-1, Phosphorylase kinase 11098-84-3, Ammonium molybdate 36995-28-5 37558-16-0, Phorbol 12,13-dibutyrate
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(simple non-radioactive assay for estimating protein kinase c and protein phosphatase-1)
IT 9012-69-5, Phosphorylase-b
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(simple non-radioactive assay for estimating protein kinase c and protein phosphatase-1)
IT 1185-53-1, Tris hydrochloride
RL: NUU (Other use, unclassified); USES (Uses)
(simple non-radioactive assay for estimating protein kinase c and protein phosphatase-1)
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Bucolo; US 4087331 1978 HCAPLUS
(2) Egan; US 5141852 1992 HCAPLUS
(3) Gallis; US 4923802 1990 HCAPLUS
(4) Mallia; US 5527688 1996 HCAPLUS
(5) Shulz; US 5580747 1996 HCAPLUS
(6) Strulovici; US 5759787 1998 HCAPLUS

L60 ANSWER 35 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2001:537428** HCAPLUS
DN 135:119239
ED Entered STN: 25 Jul 2001
TI Detection of phosphate using coupled enzymatic reactions
IN Zhou, Mingjie; Haugland, Richard P.
PA Molecular Probes, Inc., USA
SO U.S., 18 pp.
CODEN: USXXAM
DT **Patent**
LA English
IC ICM C12Q001-28
ICS C12Q001-42; C12Q001-26; C12Q001-54
NCL 435028000
CC 9-2 (Biochemical Methods)
Section cross-reference(s): 7
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6265179	B1	20010724	US 2000-495882	20000201 <--
	GB 2360846	A1	20011003	GB 2001-2200	20010129 <--
PRAI	US 2000-495882	A	20000201 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6265179	ICM	C12Q001-28
	ICS	C12Q001-42; C12Q001-26; C12Q001-54
	NCL	435028000

OS MARPAT 135:119239
AB Inorg. phosphate may be detected and optionally quantified via the coupling of a phosphate-dependent enzymic reaction with an enzyme system that generates hydrogen peroxide in the presence of a chromogenic or fluorogenic peroxidase substrate. Phosphate consuming or phosphate-producing enzymes or their substrates may also be detected and/or quantified, including pyrophosphatase enzymes or pyrophosphatase. An assay for inorg. phosphate used purine nucleoside phosphorylase, xanthine oxidase, Amplex red reagent, superoxide dismutase, horseradish peroxidase, and inosine.
ST phosphate detn coupled reaction enzyme; pyrophosphatase detn phosphate enzyme
IT Biological materials

Culture media
(anal. of; detection of phosphate using coupled enzymic reactions)

IT **Biotechnology**
(**biochips**, reaction on; detection of phosphate using coupled enzymic reactions)

IT Body fluid
Buffers
Coupling reaction
Environmental analysis
Fluorometry
Test kits
(detection of phosphate using coupled enzymic reactions)

IT Enzymes, analysis
RL: ANT (Analyte); ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(detection of phosphate using coupled enzymic reactions)

IT Nucleotides, uses
Phosphopeptides
Phosphoproteins
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(detection of phosphate using coupled enzymic reactions)

IT Calmodulins
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(detection of phosphate using coupled enzymic reactions)

IT Salts, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(detection of phosphate using coupled enzymic reactions)

IT Cell
(lysate, anal. of; detection of phosphate using coupled enzymic reactions)

IT Fluidization
(microfluidization, reaction on chips for; detection of phosphate using coupled enzymic reactions)

IT Reagents
RL: AMX (Analytical matrix); ANST (Analytical study)
(phosphate contamination in; detection of phosphate using coupled enzymic reactions)

IT Enzymes, analysis
RL: ANT (Analyte); ANST (Analytical study)
(phosphate-producing; detection of phosphate using coupled enzymic reactions)

IT **Microtiter plates**
(reaction in wells of; detection of phosphate using coupled enzymic reactions)

IT Carbohydrates, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(sugar phosphates; detection of phosphate using coupled enzymic reactions)

IT 56-65-5, 5'-ATP, analysis
RL: AMX (Analytical matrix); ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(detection of phosphate using coupled enzymic reactions)

IT 9001-37-0, Glucose oxidase
RL: AMX (Analytical matrix); ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(detection of phosphate using coupled enzymic reactions)

IT 60-92-4, CAMP 9000-95-7, Apyrase **9001-77-8**, Acid phosphatase **9001-78-9** 9012-42-4, Adenylyl cyclase **9025-73-4**, Serine phosphatase **9025-75-6**, Protein phosphatase 9027-69-4, Adenosine-5'-diphosphatase **9027-73-0**, 5'-Nucleotidase 9054-75-5, Guanylate cyclase 9059-32-9, Guanosine triphosphatase 9075-51-8, Nucleotide triphosphatase **37184-63-7**, Inositol phosphatase **79747-53-8**, Tyrosine phosphatase
RL: **ANT (Analyte)**; ANST (Analytical study)
(detection of phosphate using coupled enzymic reactions)

IT 69-79-4, Maltose 9024-82-2, Pyrophosphatase
RL: ANT (Analyte); ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(detection of phosphate using coupled enzymic reactions)

IT 9013-05-2, Phosphatase
RL: ANT (Analyte); ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(detection of phosphate using coupled enzymic reactions)
IT 14265-44-2, Phosphate, analysis
RL: ANT (Analyte); ARG (Analytical reagent use); FMU (Formation, unclassified); RCT (Reactant); ANST (Analytical study); FORM (Formation, nonpreparative); RACT (Reactant or reagent); USES (Uses)
(detection of phosphate using coupled enzymic reactions)
IT 58-63-9, Inosine 61-19-8, AMP, uses 67-07-2D, Creatine phosphate, compds. 146-80-5, Xanthosine 288-32-4, Imidazole, uses 9032-10-4, Phosphorylase-a 68247-19-8D, Inositol phosphate, compds. 109244-58-8, dihydrorhodamine 123 119171-73-2, Amplex red
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(detection of phosphate using coupled enzymic reactions)
IT 9001-05-2, Catalase 9001-05-2D, Catalase, immobilized 9002-17-9, Xanthine oxidase 9003-99-0, Peroxidase 9030-19-7, Maltose phosphorylase 9030-21-1, Purine nucleoside phosphorylase 9035-73-8, Oxidase 9035-73-8D, Oxidase, immobilized 9035-74-9, Phosphorylase 9035-74-9D, Phosphorylase, immobilized 9040-59-9, 3',5'-Cyclic nucleotide phosphodiesterase 9054-89-1, Superoxide dismutase 9074-06-0, Sucrose phosphorylase 37205-59-7, Trehalose phosphorylase
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(detection of phosphate using coupled enzymic reactions)
IT 58-08-2, Caffeine, analysis 60-00-4, EDTA, analysis 7447-40-7, Potassium chloride, analysis 7647-14-5, Sodium chloride, analysis 7773-01-5, Manganese chloride 7786-30-3, Magnesium chloride, analysis 10043-52-4, Calcium chloride, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(detection of phosphate using coupled enzymic reactions)
IT 50-99-7, Glucose, reactions 59-56-3 2466-09-3, Diphosphoric acid 7722-84-1, Hydrogen peroxide, reactions
RL: FMU (Formation, unclassified); RCT (Reactant); FORM (Formation, nonpreparative); RACT (Reactant or reagent)
(detection of phosphate using coupled enzymic reactions)
IT 154-87-0, Cocarboxylase
RL: AMX (Analytical matrix); ANST (Analytical study)
(phosphate contamination in; detection of phosphate using coupled enzymic reactions)
IT 9000-83-3
RL: AMX (Analytical matrix); ANT (Analyte); ANST (Analytical study)
(potassium-sodium-dependent; detection of phosphate using coupled enzymic reactions)
RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Adam; Clinical Chemistry 1984, V30(10)
(2) Anon; JP 56021599 1981 HCAPLUS
(3) Anon; EP 0252747 B1 1987 HCAPLUS
(4) Anon; EP 0629705 A2 1994 HCAPLUS
(5) Anon; EP 0727495 A2 1996 HCAPLUS
(6) Anon; WO 9901768 1999 HCAPLUS
(7) Anon; Bioprobes 1998, V27, P14
(8) Aoyama; US 4916058 1990 HCAPLUS
(9) Brune; Biochemistry 1994, V33(27), P8262 HCAPLUS
(10) Conrath; Analytica Chimica Acta 1995, V309, P47 HCAPLUS
(11) Haugland; US 5459268 1995 HCAPLUS
(12) Haugland; Molecular Probes Handbook 1996, P236
(13) Ikebukuro; Journal of Biotechnology 1996, V48, P67 HCAPLUS
(14) Karasawa; US 4547280 1985 HCAPLUS
(15) Kawasaki; US 5496708 1996 HCAPLUS
(16) Miike; US 4384042 1983 HCAPLUS
(17) Pierre; US 4159923 1979 HCAPLUS
(18) Sugiura; Japan J Clin, Chem 1982, V11(2), P83 HCAPLUS
(19) Zhou; Anal Bioch 1997, V253, P162 HCAPLUS
(20) Zoppi; Clinical Chemistry 1985, V31(7)

L60 ANSWER 36 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2001:480629** HCAPLUS
DN 135:87156
ED Entered STN: 04 Jul 2001
TI Antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and the Warburg effect
IN Bucala, Richard J.; Chesney, Jason A.; Mitchell, Robert A.
PA The Picower Institute for Medical Research, USA
SO U.S., 29 pp., Cont.-in-part of U.S. Ser. No. 961,578.
CODEN: USXXAM
DT **Patent**

LA English
IC ICM C12Q001-00
ICS G01N033-573; G01N033-53
NCL 435004000
CC 1-6 (Pharmacology)
Section cross-reference(s): 3, 7, 14
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 6255046	B1	20010703	US 1998-183846	19981030	<--
	US 6413939	B1	20020702	US 1997-961578	19971031	<--
	US 6596851	B1	20030722	US 2000-670216	20000925	<--
	US 2003228568	A1	20031211	US 2003-449512	20030602	<--
PRAI	US 1997-961578	A2	19971031	<--		
	US 1998-183846	A3	19981030	<--		
	US 2000-670216	A1	20000925	<--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
US 6255046	ICM	C12Q001-00	
	ICS	G01N033-573; G01N033-53	
	NCL	435004000	
US 6255046	ECLA	C12N009/12B1B	<--
US 6413939	ECLA	C12N009/12B1B	<--
US 6596851	ECLA	C12N009/12B1B	<--
US 2003228568	ECLA	C12N009/12B1B	<--

AB There is disclosed a cancer malignancy diagnostic assay comprising obtaining a sample of a body fluid or tissue, performing a sequence identity assay to look for the presence of iPFK-2 specific sequences; an anticancer pharmaceutical composition comprising a specific antisense oligonucleotide to the inventive isolated iPFK-2 sequence and a pharmaceutically acceptable oligonucleotide carrier; and a method for finding therapeutically active anti-cancer compds. comprising screening compds. for activity to inhibit iPFK-2, preferably kinase activity. A method for screening for a candidate therapeutic agent that inhibits the kinase activity of kPFK-2 is claimed. Antisense oligonucleotides specific for iPFK-2 inhibited K-562 tumor growth in mice.

ST inducible phosphofructokinase drug screening antitumor agent; antisense oligonucleotide iPFK2 tumor inhibitor; Warburg effect inducible phosphofructokinase cancer diagnosis treatment

IT Animal cell line
(A549, iPFK-2 expression in; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT Lipopolysaccharides
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(Escherichia coli, iPFK-2 induction in peripheral blood monocytes by; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT Animal cell line
(G361, iPFK-2 expression in; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT Animal cell line
(HL-60, iPFK-2 expression in; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT Animal cell line
(K562, iPFK-2 expression in; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT Animal cell line
(Molt 4, iPFK-2 expression in; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT PCR (polymerase chain reaction)
(RT-PCR (reverse transcription-PCR); antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT Animal cell line
(Raji, iPFK-2 expression in; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT HeLa cell
(S3, iPFK-2 expression in; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT Animal cell line
(SW480, iPFK-2 expression in; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT Glycolysis
(anaerobic glycolysis, Warburg effect in tumors; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg

effect)
IT Animal tissue
Antitumor agents
Body fluid
Drug screening
Molecular cloning
Neoplasm
Northern blot hybridization
Protein sequences
cDNA sequences
(antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)
IT Antisense oligonucleotides
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)
IT Diagnosis
(cancer; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)
IT Antitumor agents
(chronic myelocytic leukemia; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)
IT Neoplasm
(diagnosis; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)
IT Spleen
(endotoxemia induction of iPFK-2 mRNA expression in mouse muscle and; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)
IT Muscle
(endotoxemia induction of iPFK-2 mRNA expression in mouse spleen and; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)
IT mRNA
RL: BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation); PROC (Process)
(for iPFK-2 induction by LPS in peripheral blood monocytes; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)
IT Inflammation
(iPFK-2 as marker for; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)
IT Tumor markers
(iPFK-2 as; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)
IT Endotoxemia
(iPFK-2 expression in mouse spleen and muscle induction by; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)
IT Monocyte
(iPFK-2 induction by LPS in peripheral blood; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)
IT Human immunodeficiency virus
(iPFK-2 mRNA overexpression in humans pos. for; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)
IT **Immunoassay**
(immunoblotting; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)
IT Antitumor agents
(lymphocytic leukemia; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)
IT Liver
(therapeutic agent not inhibiting phosphofructokinase of; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)
IT Antibodies
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(to iPFK-2 C-terminal peptide; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)
IT 347204-05-1

RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)
(PCR primer for IL-1.beta.; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT 347203-99-0 347204-00-6
RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)
(PCR primer for iPFK-2; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT 347204-01-7 347204-02-8 347204-03-9 347204-04-0
RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)
(PCR primer for liver PFK-2; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT 341064-93-5 347203-98-9
RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)
(PCR primer for .beta.-actin; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT 347203-92-3 347203-93-4 347203-94-5 347203-95-6 347203-96-7
347203-97-8 347204-08-4 347204-09-5
RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)
(PCR primer; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT 224042-30-2
RL: PRP (Properties)
(amino acid sequence; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT 79082-92-1, Fructose 2,6-bisphosphate
RL: ANT (Analyte); FMU (Formation, unclassified); ANST (Analytical study); FORM (Formation, nonpreparative)
(antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT 643-13-0, Fructose 6-phosphate
RL: ARG (Analytical reagent use); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses)
(antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT 224035-06-7
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
(iPFK-2 C-terminal peptide, antibodies production to; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT **78689-77-7P**, Phosphofructokinase
RL: ADV (Adverse effect, including toxicity); **ANT (Analyte)**; BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); USES (Uses)
(inducible isoenzyme; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT 224303-46-2 224303-47-3
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nucleotide sequence antisense oligonucleotide; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT 347434-26-8 347921-93-1
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(nucleotide sequence sense oligonucleotide; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT 347203-91-2
RL: PRP (Properties)
(nucleotide sequence, as query sequence; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT 217509-94-9P
RL: BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PREP (Preparation); PROC (Process)
(nucleotide sequence; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and Warburg effect)

IT 347204-06-2 347204-07-3
RL: PRP (Properties)
(unclaimed nucleotide sequence; antitumor drug screening involving inducible phosphofructokinase (iPFK-2) and the Warburg effect)
RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anon; WO 9715674 1997 HCAPLUS

L60 ANSWER 37 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2001:178460** HCAPLUS
DN 134:204340
ED Entered STN: 15 Mar 2001
TI Immunoassay for bone alkaline phosphatase
IN Avnur, Zafrira; Pedersen, Suzanna S.; Cerelli, Mary Jane; Kempe, Thomas D.
PA Dade Behring Marburg G.m.b.H., Germany
SO U.S., 23 pp.
CODEN: USXXAM
DT **Patent**
LA English
IC ICM A61K039-395
NCL 530388260
CC 7-1 (Enzymes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6201109	B1	20010313	US 1993-3894	19930113 <--
PRAI US 1993-3894		19930113 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6201109	ICM	A61K039-395
	NCL	530388260

AB This invention relates to novel monoclonal antibodies XI-4G6, XII-10E3 and XII-3B2, which are capable of recognizing bone alkaline phosphatase and not liver alkaline phosphatase. Methods and kits for using these antibodies in the determination of bone alkaline phosphatase are also described.
ST bone alk phosphatase detn immunoassay; monoclonal antibody XI4G6 XII10E3 XII3B2 alk phosphatase detn
IT Bone, disease
(Paget's; immunoassay for bone alkaline phosphatase)
IT **Immunoassay**
(enzyme-linked immunosorbent assay; immunoassay for bone alkaline phosphatase)
IT **Immunoassay**
(enzyme; immunoassay for bone alkaline phosphatase)
IT Blood analysis
Bone
Epitopes
Hyperparathyroidism
Hypoparathyroidism
Osteoporosis
(immunoassay for bone alkaline phosphatase)
IT Antibodies
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(labeled, monoclonal; immunoassay for bone alkaline phosphatase)
IT Antibodies
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(monoclonal, XI-4G6, XII-10E3 and XII-3B2; immunoassay for bone alkaline phosphatase)
IT Antibodies
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(monoclonal, biotinylated; immunoassay for bone alkaline phosphatase)
IT Antibodies
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(monoclonal, conjugates; immunoassay for bone alkaline phosphatase)
IT **Immunoassay**
(radioimmunoassay; immunoassay for bone alkaline phosphatase)
IT **9001-78-9**, Alkaline phosphatase
RL: **ANT (Analyte)**; ANST (Analytical study)
(immunoassay for bone alkaline phosphatase)
IT 6066-82-6, N-Hydroxysuccinimide 6953-60-2, S-Acetylmercaptosuccinic anhydride 60792-79-2, 2,2'-Oxybis(ethylamine) dihydrochloride 76823-03-5, 5-Carboxyfluorescein 103708-09-4, Sulfosuccinimidyl

4-(N-maleimidomethyl) cyclohexanecarboxylate
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of fluoresceinated monoclonal antibodies XII-3B2 and XI-4G6)
IT 92557-80-7P, 5-Carboxyfluorescein NHS ester 329048-96-6P 329048-98-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of fluoresceinated monoclonal antibodies XII-3B2 and XI-4G6)
RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anderson; US 5087573 1992 HCAPLUS
(2) Anon; GB 2074727 1981 HCAPLUS
(3) Anon; GB 2190490 1987 HCAPLUS
(4) Anon; EP 381450 A2 1990 HCAPLUS
(5) Bailyes; Biochemistry J 1987, V244, P725 HCAPLUS
(6) Bunting; US 4271140 1981 HCAPLUS
(7) Forrest; US 4659678 1987 HCAPLUS
(8) Hill; Clinica Chimica Acta 1989, V186, P315
(9) Hill; Journal of Bone and Mineral Research 1991, V6(Suppl 1), PS244
(10) Hosoda; US 5173406 1992 HCAPLUS
(11) Jeong; US 4244940 1981 HCAPLUS
(12) Lawson; Clinical Chemistry 1985, V31(3), P381 HCAPLUS
(13) Masuhara; International Orthopaedics 1991, V15, P61 MEDLINE
(14) Mulivor; Journal Lab Clin Med 1985, V105(3), P342 HCAPLUS
(15) Murad; US 4474892 1984
(16) Nagoya; Jpn Journal Cancer Research 1991, V82, P862 MEDLINE
(17) Schuurs; US Re32696 1988
(18) Seabrook; Clinica Chimica Acta 1988, V172, P261 HCAPLUS
(19) Singh; Experimental Cell Research 1975, V95, P347 HCAPLUS
(20) Tischer; US 5248592 1993 HCAPLUS
(21) Wada; Cancer Research 1988, V48, P2273 HCAPLUS
(22) Zahradnik; US 4935339 1990 HCAPLUS

L60 ANSWER 38 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2000:909112** HCAPLUS
DN 134:67131
ED Entered STN: 28 Dec 2000
TI Non-radioactive methods for chemical cleavage sequencing and footprinting of nucleic acids
IN Iyyalasomayazula, Narayana Rao
PA UT-Battelle, LLC, USA
SO U.S., 16 pp.
CODEN: USXXAM
DT **Patent**
LA English
IC ICM C12Q001-68
NCL 435006000
CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 9
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6165726	A	20001226	US 1999-400046	19990921 <--
PRAI US 1999-400046		19990921 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6165726	ICM	C12Q001-68
	NCL	435006000

AB A method of sequencing a nucleic acid is provided, comprising: (a) labeling the nucleic acid with biotin; (b) subjecting the nucleic acid of step a to base specific chemical modifications; (c) cleaving the nucleic acid of step b at the modified bases with hot piperidine; (d) contacting the nucleic acid of step c with immobilized streptavidin, whereby biotin-containing fragments are bound to immobilized streptavidin and unbound fragments are washed off; (e) extracting the streptavidin bound fragments of step d; (f) resolving the fragments of step e on a denaturing polyacrylamide gel; and (g) staining the fragments in the gel of step f by silver staining. A further method of sequencing a nucleic acid is provided, comprising (a) labeling the nucleic acid with DMT (di-Me trityl protective group); (b) subjecting the nucleic acid of step a to base specific chemical modifications; (c) cleaving the nucleic acid of step b at the modified bases with hot piperidine; (d) contacting the nucleic acid of step c with an OPC (Oligo Purification Column) whereby DMT-containing fragments are bound to the OPC and unbound fragments are washed off; (e) eluting the fragments that bound to the OPC in step d; (f) resolving the fragments of step e on a denaturing polyacrylamide gel; and (g) staining the fragments

in the gel of step f by silver staining. Methods for DNAse I footprinting, footprinting with Exonuclease III, hydroxyl radical footprinting, methylation protection and methylation interference studies and ethylation protection studies are provided. Kits containing some or all of the components needed to practice one or more steps of the present method are provided. The invention is exemplified by sequencing human tumor suppressor gene p53. The method can be applied to footprinting protocols and other applications for DNA-protein interaction anal. methods.

ST nonradioactive nucleic acid sequencing method piperidine cleavage DMT labeling; DNA footprinting method nonradioactive

IT Primers (nucleic acid)
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(for nonradioactive DNA sequencing and footprinting anal.; non-radioactive methods for chemical cleavage sequencing and footprinting of nucleic acids)

IT Polyacrylamide gel electrophoresis
(for resolving DNA sequencing products; non-radioactive methods for chemical cleavage sequencing and footprinting of nucleic acids)

IT DNA
RL: ANT (Analyte); ANST (Analytical study)
(methylation, nonradioactive anal. of; non-radioactive methods for chemical cleavage sequencing and footprinting of nucleic acids)

IT **Test kits**
(non-radioactive methods for chemical cleavage sequencing and footprinting of nucleic acids)

IT DNA
Nucleic acids
RL: ANT (Analyte); ANST (Analytical study)
(non-radioactive methods for chemical cleavage sequencing and footprinting of nucleic acids)

IT DNA footprinting
(nonradioactive anal. of; non-radioactive methods for chemical cleavage sequencing and footprinting of nucleic acids)

IT DNA sequence analysis
(nonradioactive; non-radioactive methods for chemical cleavage sequencing and footprinting of nucleic acids)

IT Hydroxyethylation
(of DNA, nonradioactive anal. of; non-radioactive methods for chemical cleavage sequencing and footprinting of nucleic acids)

IT 110-89-4, Piperidine, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(cleavage of modified nucleic acid base; non-radioactive methods for chemical cleavage sequencing and footprinting of nucleic acids)

IT 69239-35-6
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(for labeling DNA sequencing products; non-radioactive methods for chemical cleavage sequencing and footprinting of nucleic acids)

IT **9003-98-9**, DNAse I
RL: **ANT (Analyte)**; ANST (Analytical study)
(for nonradioactive DNA footprinting anal.; non-radioactive methods for chemical cleavage sequencing and footprinting of nucleic acids)

IT 3352-57-6, Hydroxyl radical, uses 9037-44-9, Exonuclease III
RL: ARG (Analytical reagent use); CAT (Catalyst use); ANST (Analytical study); USES (Uses)
(for nonradioactive DNA footprinting anal.; non-radioactive methods for chemical cleavage sequencing and footprinting of nucleic acids)

IT 7440-22-4, Silver, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(for staining DNA sequencing products; non-radioactive methods for chemical cleavage sequencing and footprinting of nucleic acids)

IT 9013-20-1, Streptavidin
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(immobilized, for capturing biotin-labeled DNA products; non-radioactive methods for chemical cleavage sequencing and footprinting of nucleic acids)

IT 58-85-5, Biotin
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(primer labeling; non-radioactive methods for chemical cleavage sequencing and footprinting of nucleic acids)

IT 315255-59-5, 1: PN: US6165726 SEQID: 1 unclaimed DNA 315255-60-8, 3: PN: US6165726 SEQID: 3 unclaimed DNA 315255-61-9, 4: PN: US6165726 SEQID: 4 unclaimed DNA 315255-62-0, 5: PN: US6165726 SEQID: 5 unclaimed DNA 315255-63-1, 6: PN: US6165726 SEQID: 6 unclaimed DNA 315255-64-2, 8: PN: US6165726 SEQID: 8 unclaimed DNA 315255-65-3, 9: PN: US6165726 SEQID: 9 unclaimed DNA 315255-66-4 315255-67-5 315255-68-6 315255-69-7

315255-70-0 315255-71-1 315255-72-2 315255-73-3 315255-74-4
315255-75-5 315255-76-6 315255-77-7 315255-78-8
RL: PRP (Properties)
(unclaimed nucleotide sequence; non-radioactive methods for chemical cleavage sequencing and footprinting of nucleic acids)
IT 92206-27-4 213250-54-5
RL: PRP (Properties)
(unclaimed sequence; non-radioactive methods for chemical cleavage sequencing and footprinting of nucleic acids)
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Bassam; Applied Microbiology Biotechnology 1992, V38, P70 HCAPLUS
(2) Ikuta; Analytical Chemistry 1984, V56, P2253 HCAPLUS
(3) Isola; Analytical Chemistry 1999, V71(13), P2266 HCAPLUS
(4) Maxam; Proc Natl Acad Sci USA 1977, V74(2), P560 HCAPLUS
(5) Ohara; Biotechniques 1997, V22(4) HCAPLUS
(6) Ohara; DNA Research 1995, V2, P123 HCAPLUS
(7) Richterich, P; Nucleic Acids Research 1989, V17(6), P2181 HCAPLUS
(8) Rosenthal, A; Methods in Mol Biol 1993, V23, P261 HCAPLUS
(9) Theisen; Nucleic Acids Symposium Series 1992, V27, P99 HCAPLUS

L60 ANSWER 39 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2000:785879** HCAPLUS
DN 133:331774
ED Entered STN: 09 Nov 2000
TI CAP-PAP test
IN Markovic, Nenad; Markovic, Olivera
PA USA
SO U.S., 27 pp.
CODEN: USXXAM
DT **Patent**
LA English
IC ICM C12Q001-42
ICS C12Q001-00; G01N033-53
NCL 435021000
CC 9-4 (Biochemical Methods)
Section cross-reference(s): 7, 14
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6143512	A	20001107	US 1999-329445	19990610 <--
PRAI US 1998-96744P	P	19980817 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6143512	ICM	C12Q001-42
	ICS	C12Q001-00; G01N033-53
	NCL	435021000

AB The CAP-PAP Test is a double-staining, single-slide microscopic method. An in vitro diagnostic medical device for manual and automatic staining and interpreting of the Pap smear for cervical cancer screening, cervical dysplasia and for follow-up therapy can be developed using this double-staining, single-slide microscopic method. Abnormal cervical cells are labeled with an intracellular acid phosphatase derived pigment (azo-dye) to improve visibility of abnormal cervical cells on conventionally stained Pap smears. The enzyme marker improves human perception and/or sensitivity of automatic instruments when distinguishing cell a abnormality and interpretation of Pap smears. Increased accuracy of CAP-PAP-vs.-Pap test is expected to reduce false neg. readings of the conventional Pap test. A rapid manual version of the test that is low cost, does not require addnl. personnel training and is instantly applicable in all cytopathol. labs. is provided. The invention further provides a diagnostic kit, an automatic stainer and an automatic evaluation device for performing the double-staining, single-slide microscopic method.
ST CAP PAP diagnosis cervical cancer
IT Azo dyes
Clinical analyzers
Diagnosis
HeLa cell
Imaging
Microscopes
Microscopy
Robotics
Temperature
Test kits

Therapy
Time
pH
(CAP-PAP test)
IT Reagents
RL: ANT (Analyte); ANST (Analytical study)
(CAP-PAP test)
IT Computer program
(Image recognition; CAP-PAP test)
IT Computers
(Workstations; CAP-PAP test)
IT Tools
(abrasive; CAP-PAP test)
IT Diagnosis
(cancer; CAP-PAP test)
IT Uterus, disease
(cervix, dysplasia; CAP-PAP test)
IT Uterus
(cervix, epithelium; CAP-PAP test)
IT Uterus
Uterus
Uterus, neoplasm
(cervix; CAP-PAP test)
IT Staining, biological
(double; CAP-PAP test)
IT Diazonium compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(salts; CAP-PAP test)
IT Microscopes
(slides; CAP-PAP test)
IT **9001-77-8**, Acid phosphatase
RL: **ANT (Analyte)**; THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(CAP-PAP test)
IT 50-00-0, Formaldehyde, biological studies 67-64-1, Acetone, biological studies 77-92-9, biological studies 7732-18-5, Water, biological studies 33881-88-8
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(CAP-PAP test)
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Adler; US 3991705 1976
(2) Adler; US 4120262 1978 HCAPLUS
(3) Anon; US 426850 1997
(4) Anon; US 60096744 1998
(5) Bacus; US 4175860 1979
(6) Histotech, J; 1999, V22(1), P43
(7) Schuster; US 4059404 1977

L60 ANSWER 40 OF 40 HCAPLUS COPYRIGHT 2004 ACS on STN
AN **2000:768995** HCAPLUS
DN 133:319305
ED Entered STN: 02 Nov 2000
TI Indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus
IN Anderson, Christen M.; Davis, Robert E.
PA Mitokor, USA
SO U.S., 31 pp.
CODEN: USXXAM
DT **Patent**
LA English
IC ICM C12Q001-32
ICS C12Q001-48; C12Q001-00; C12Q001-54
NCL 435026000
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 1, 14
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6140067	A	20001031	US 1999-303816	19990430 <--
	US 6280966	B1	20010828	US 2000-521407	20000308 <--
	CA 2370119	AA	20001109	CA 2000-2370119	20000419 <--
	WO 2000066762	A2	20001109	WO 2000-US10498	20000419 <--
	WO 2000066762	A3	20010412		

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        W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
            CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
            ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
            LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
            SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA,
            ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
            DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
            CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
    EP 1181388          A2    20020227    EP 2000-923506          20000419 <--
        R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
    JP 2002543422       T2    20021217    JP 2000-615784          20000419 <--
    US 2002031759       A1    20020314    US 2001-924313          20010807 <--
    US 6653094          B2    20031125
    US 2003235812       A1    20031225    US 2003-351458          20030124 <--
PRAI US 1999-303816     A1    19990430  <--
    US 2000-521407      A1    20000308  <--
    WO 2000-US10498     W     20000419  <--
    US 2001-924313      A1    20010807
CLASS
 PATENT NO.       CLASS  PATENT FAMILY CLASSIFICATION CODES
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 US 6140067       ICM    C12Q001-32
                  ICS    C12Q001-48; C12Q001-00; C12Q001-54
                  NCL    435026000
 US 6280966       ECLA   G01N033/68V                                    <--
 US 2002031759    ECLA   G01N033/68V                                    <--
 US 2003235812    ECLA   G01N033/68V                                    <--
AB   The present invention relates to improved diagnostic methods for early
     detection of a risk for developing type 2 diabetes mellitus in humans, and
     screening assays for therapeutic agents useful in the treatment of type 2
     diabetes mellitus, by comparing the levels of one or more indicators of
     altered mitochondrial function.  Indicators of altered mitochondrial
     function include enzymes such as mitochondrial enzymes and ATP
     biosynthesis factors.  Other indicators of altered mitochondrial function
     include mitochondrial mass, mitochondrial number and mitochondrial DNA
     content, cellular responses to elevated intracellular calcium and to
     apoptogens, and free radical production  Methods of treating, and of
     stratifying, human patients as such methods relate to disclosed indicators
     of altered mitochondrial function are also provided.
ST   indicator mitochondria function risk diabetes mellitus
IT   Transport proteins
     RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical
     study); BIOL (Biological study)
        (ADP/ATP carrier; indicators of altered mitochondrial function in
        predictive methods for determining risk of type 2 diabetes mellitus)
IT   Cyclophilins
     RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical
     study); BIOL (Biological study)
        (D; indicators of altered mitochondrial function in predictive methods
        for determining risk of type 2 diabetes mellitus)
IT   Oxidation
        (DNA and protein; indicators of altered mitochondrial function in
        predictive methods for determining risk of type 2 diabetes mellitus)
IT   Nucleic acid amplification (method)
        (DNA; indicators of altered mitochondrial function in predictive
        methods for determining risk of type 2 diabetes mellitus)
IT   Anion channel
     RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical
     study); BIOL (Biological study)
        (Voltage dependent; indicators of altered mitochondrial function in
        predictive methods for determining risk of type 2 diabetes mellitus)
IT   Proteins, specific or class
     RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical
     study); BIOL (Biological study)
        (bcl-2; indicators of altered mitochondrial function in predictive
        methods for determining risk of type 2 diabetes mellitus)
IT   Apoptosis
     Diagnosis
       Drug screening
     Electron transport system, biological
     Fluorescent substances
     Glycosylation
     Mass
     Mitochondria
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Nucleic acid hybridization
PCR (polymerase chain reaction)
RFLP (restriction fragment length polymorphism)
Transcription, genetic
Tricarboxylic acid cycle
(indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)

IT Proteins, general, analysis
Reactive oxygen species
Uncoupling protein
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)

IT Enzymes, analysis
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)

IT Mitochondrial DNA
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)

IT Radicals, biological studies
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)

IT Primers (nucleic acid)
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)

IT Mitochondria
Mitochondria
(inner membrane; indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)

IT Membrane, biological
Membrane, biological
(inner mitochondrial; indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)

IT Genetic methods
(ligase chain reaction; indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)

IT Oxidation
(lipid; indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)

IT Mitochondria
Mitochondria
(membrane; indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)

IT Membrane, biological
Membrane, biological
(mitochondrial; indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)

IT Diabetes mellitus
(non-insulin-dependent; indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)

IT Lipids, analysis
RL: ANT (Analyte); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(oxidation; indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)

IT Benzodiazepine receptors
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(peripheral-type; indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)

IT Nitrosation
(protein; indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)

IT DNA formation
(replication; indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)

IT Nucleotides, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(sequences; indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)
IT 39391-18-9
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(cyclooxygenase-1, 2 and 4; indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)
IT 7782-44-7D, Oxygen, reactive species, analysis 9001-15-4, Creatine kinase 9001-16-5, Cytochrome c oxidase 9001-49-4, Glycerol 3-phosphate dehydrogenase 9001-50-7, Glyceraldehyde phosphate dehydrogenase **9001-51-8**, Hexokinase 9001-58-5, Isocitrate dehydrogenase 9001-64-3, Malate dehydrogenase **9001-80-3**, Phosphofructokinase 9002-02-2, Succinate dehydrogenase 9014-36-2, Succinyl-coenzyme A synthetase 9024-25-3, Aconitase 9027-96-7, Citrate synthase. 9031-02-1, .alpha.-Ketoglutarate dehydrogenase 9032-88-6, Fumarase 9035-74-9, Glycogen phosphorylase 9079-67-8, NADH dehydrogenase
RL: **ANT (Analyte)**; BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)
IT 56-65-5P, 5'-ATP, preparation
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)
IT 56-84-8, L-Aspartic acid, biological studies 97-67-6 504-17-6D, Thiobarbituric acid, reactive substances 3868-31-3, 8-Hydroxyguanosine 3868-31-3D, 8-Hydroxyguanosine, adducts
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)
IT 75168-11-5
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)
IT 37205-63-3, ATP synthase
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(subunits; indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)
IT 7440-70-2, Calcium, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(uniporters; indicators of altered mitochondrial function in predictive methods for determining risk of type 2 diabetes mellitus)
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